

# SPECIFICATIONS

	PB10	PB12
<b>Amplifier Power (RMS):</b>	150 Watts	250 Watts
<b>Driver:</b>	10" Pure-Cellulose Fiber	12" Pure-Cellulose Fiber
<b>Inputs:</b>	Line Level (switchable to LFE) and Speaker Level with gold-plated 5-way binding posts	Line Level (switchable to LFE) and Speaker Level with gold-plated 5-way binding posts
<b>Outputs:</b>	Speaker Level, High-Pass with gold-plated 5-way binding posts	Speaker Level, High-Pass with gold-plated 5-way binding posts
<b>Low-Pass Frequency:</b>	Continuously variable from 50Hz – 150Hz	Continuously variable from 50Hz – 150Hz
<b>High-Pass Frequency:</b>	150Hz when using speaker-level output	150Hz when using speaker-level outputs
<b>Frequency Response:</b>	27Hz – low-pass crossover setting	25Hz – low-pass crossover setting
<b>Dimensions (H x W x D):</b>	14" (16" with feet) x 14" x 15" 356mm (406mm with feet) x 356mm x 381mm	15-1/2" (17-1/2" with feet) x 15" x 16" 394mm (445mm with feet) x 381mm x 406mm
<b>Weight:</b>	35 lb/15.9kg	40 lb/18.2kg

Occasional refinements may be made to existing products without notice, but will always meet or exceed original specifications unless otherwise stated.

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DTS is a registered trademark of Digital Theater Systems, Inc.

# THANK YOU FOR CHOOSING JBL

For more than 50 years, JBL has been involved in every aspect of music and film recording and reproduction, from live performances to the recordings you play in your home, car or office.

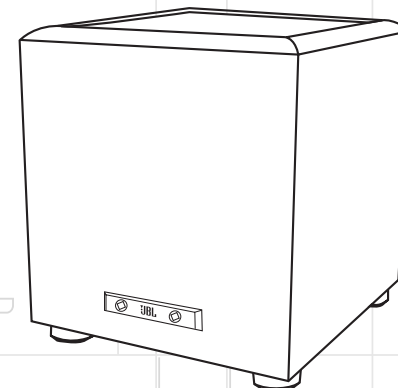
We're confident that the JBL loudspeakers you have chosen will provide every

note of enjoyment that you expected – and that when you think about purchasing additional audio equipment for your home, car or office, you will once again choose JBL.

Please take a moment to complete the enclosed profile card. It enables us to keep

you posted on our latest advancements, and helps us to better understand our customers and build products that meet their needs and expectations.

JBL Consumer Products



## OWNER'S GUIDE

PRODUCT LINE: **PowerBass™ SERIES**

MODEL NUMBER: **PB10, PB12**

**DESIGN GOAL:** Bring the thrill of live performance and movie sound to the home environment by calling on JBL's professional engineering leadership.

**WOOFER TYPE:** Pure cellulose fiber

**PORT DESIGN:** FreeFlow™ flared

**PROFESSIONAL REFERENCE:** Cinema Loudspeaker Series



**PRO SOUND COMES HOME™**

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Part No. 203250

H A Harman International Company

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## READ THIS! Important Safety Precautions!

### CAUTION

#### RISK OF ELECTRIC SHOCK DO NOT OPEN

CAUTION: To prevent electric shock, do not remove the grounding plug on the power cord, or use any plug or extension cord that does not have a grounding plug provided.

Make certain that the AC outlet is properly grounded. Do not use an adapter plug with this product.

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 product's 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 appliance.

**1. Read Instructions.** All the safety and operating instructions should be read before the product is operated.

**2. Retain Instructions.** The safety and operating instructions should be retained for future reference.

**3. Heed Warnings.** All warnings on the product and in the operating instructions should be adhered to.

**4. Follow Instructions.** All operating and use instructions should be followed.

**5. Cleaning.** Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

**6. Attachments.** Do not use attachments not recommended by the product manufacturer, as they may cause hazards.

**7. Water and Moisture.** Do not use this product near water – for example, near a bathtub, wash bowl, kitchen sink or laundry tub; in a wet basement; or near a swimming pool; and the like.

**8. Accessories.** Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

**9. A Product and Cart Combination Should Be Moved with Care.** Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

**10. Ventilation.** Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.

**11. Power Sources.** This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.

**12. Grounding or Polarization.** This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

**13. Power-Cord Protection.** Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

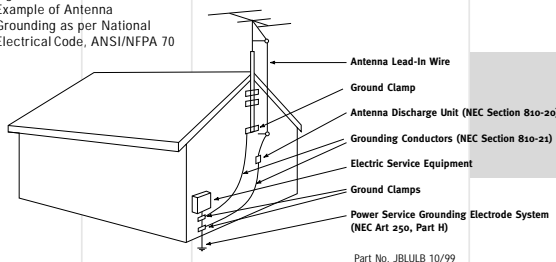
**14. Nonuse Periods.** The power cord of the product should be unplugged from the outlet when left unused for long periods of time.

**15. Outdoor Antenna Grounding.** If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.

**16. Lightning.** For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.

**17. Power Lines.** An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits, as contact with them might be fatal.

Figure A.  
Example of Antenna  
Grounding as per National  
Electrical Code, ANSI/NFPA 70



**18. Overloading.** Do not overload wall outlets, extension cords, or integral convenience receptacles, as this can result in a risk of fire or electric shock.

**19. Object and Liquid Entry.** Never push objects of any kind into this product through openings, as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

**20. Servicing.** Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

**21. Damage Requiring Service.** Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- The power-supply cord or the plug has been damaged; or
- Objects have fallen onto, or liquid has been spilled into, the product; or
- The product has been exposed to rain or water; or
- The product does not operate normally when following the operating instructions. Adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation; or
- The product has been dropped or damaged in any way; or
- The product exhibits a distinct change in performance – this indicates a need for service.

**22. Replacement Parts.** When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.

**23. Safety Check.** Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

**24. Wall or Ceiling Mounting.** The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

**25. Heat.** The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

## SPEAKER PLACEMENT

- As a general rule, bass response increases as a subwoofer is placed closer to a wall. Therefore, bass output is maximized when the subwoofer is placed in a corner.
- It is also recommended that the subwoofer be positioned along the same wall as the front loudspeakers.

Low-frequency sounds are normally omnidirectional, meaning the listener can't tell

where they are generated from. However, frequencies between 75Hz – 150Hz can be localized, especially at higher volume levels. Positioning your subwoofer as recommended will provide the most natural soundstage and imaging from your loudspeaker system.

Remember that these are just guidelines. Since every listening room is different, JBL strongly recommends experimenting with the

positioning of your subwoofer to obtain the most pleasing results in your room. One technique that can help you find the ideal subwoofer location is to temporarily place the subwoofer near the main listening location. Then move around the room and determine where you hear the most pleasing bass performance. This would then be the ideal location for the subwoofer.

## SPEAKER CONNECTION

When we designed the PB10 and PB12 powered subwoofers, our goal was to offer the user the best possible performance combined with the most flexible and complete installation options. Please look over the following three

examples to determine which description best matches your system and follow the corresponding hookup instructions.

To use the binding-post speaker terminals with bare wire, unscrew the collar until the hole through the center

post is visible under the collar. Insert the bare end of the wire through the hole in the post, then screw the collar back down until the connection is tight. The holes in the center of the collars are intended for banana-type connectors.

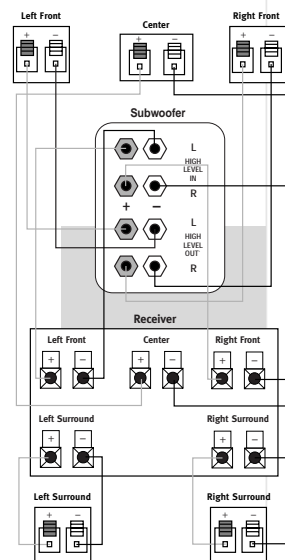
### Dolby® Pro Logic® (Non-Digital) – Speaker Level

Use this installation method for Dolby Pro Logic applications (not Dolby Digital, DTS® or other digital processing), where the receiver/processor does not have a subwoofer output or a volume-controlled preamp (line-) level output:

Connect your receiver or amplifier's front left and right speaker terminals to the left and right terminals on the subwoofer that are marked "High Level In." Connect the left and right terminals on the subwoofer that are marked "High Level Out" to the corresponding terminals on the

back of your front left and right speakers.

Connect your receiver or amplifier's center, left and right surround-speaker terminals to the corresponding terminals on the back of your center, left and right surround speakers.



## Dolby Pro Logic (Non-Digital) – Line Level

Use this installation method for Dolby Pro Logic applications (not Dolby Digital, DTS or other digital processing), where the receiver/processor is equipped with a subwoofer output or a volume-controlled preamp (line-) level output:

Use RCA-type patch cords to connect the line-level subwoofer outputs on your receiver or amplifier to the line-level inputs on the subwoofer. **IMPORTANT:**

Make sure that the LFE toggle switch on the subwoofer is in the "Normal" position. Do not

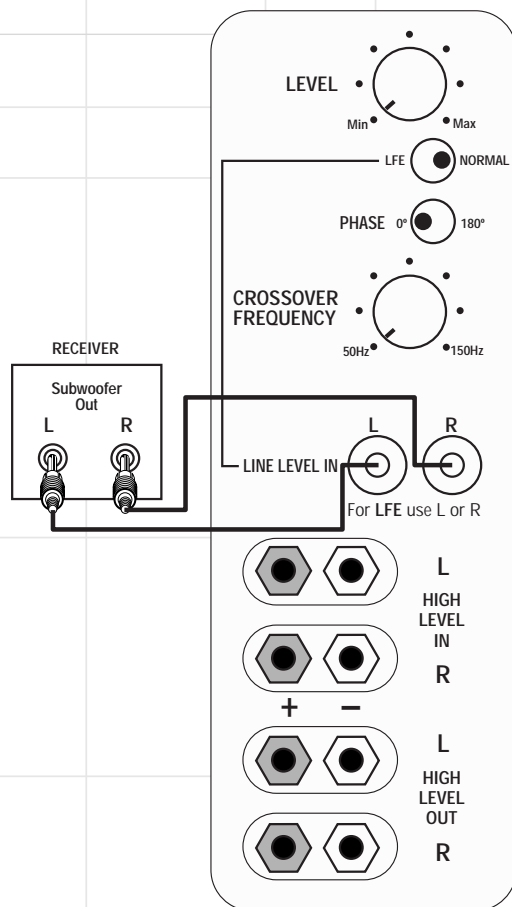
use the "LFE" position with Dolby Pro Logic-only processors.

**Note:** If your receiver or amplifier only has one subwoofer output jack, then you may connect the subwoofer output on your receiver/preamplifier to either the left or right line-level input on the subwoofer. It makes no difference which jack you choose.

Connect each speaker to the corresponding speaker terminals on your receiver or amplifier.

Make sure your receiver or processor is configured correctly: Make sure that the subwoofer is configured as "On."

**Note for advanced users:** If your receiver/processor has a built-in low-pass crossover filter for the subwoofer output, then the LFE switch should be set to the "LFE" position to bypass the subwoofer's internal crossover.



## Dolby Digital or DTS (or Other Digital Surround Mode) Connection

Use this installation method for Dolby Digital, DTS or other digital surround processors:

**IMPORTANT:** Make sure that the LFE toggle switch on the subwoofer is in the "LFE" position. Use the line-level input jacks for the Low-Frequency Effects channel. Connect these jacks to the LFE output or subwoofer output on your receiver or amplifier.

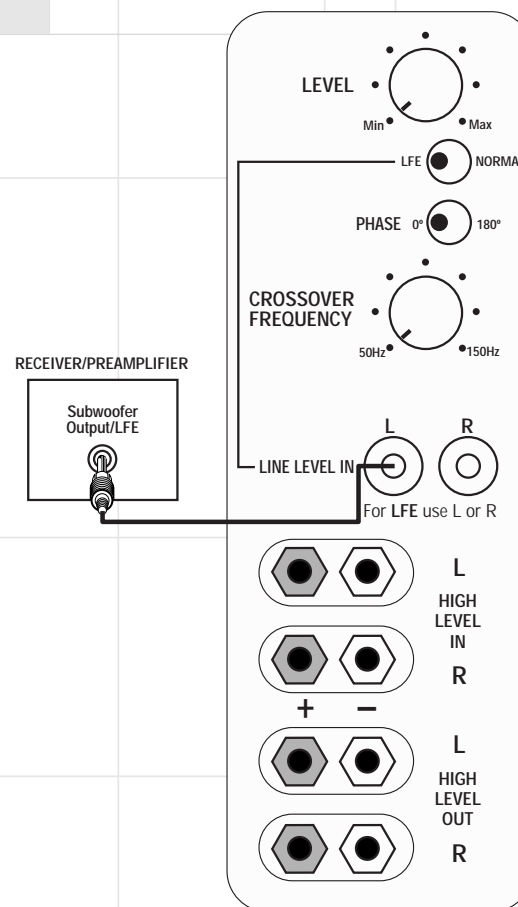
**Note:** If your receiver or amplifier only has one subwoofer output jack,

then you may connect the subwoofer output on your receiver/preamplifier to either the left or right line-level input on the subwoofer. It makes no difference which jack you choose.

Connect each speaker to the corresponding speaker terminals on your receiver or amplifier.

Make sure that you have configured your surround-sound processor for "Subwoofer On" or "LFE On." The front left, front right,

center and rear speakers should be set to "Small" or "Large" depending on their size and frequency response. Consult your receiver's or processor's owner's manual.



# OPERATION

## Power

When the unit is plugged in and (for the PB12 only) the power switch is on and no signal is received, the LEDs on the front of the unit will turn red. When a signal is present, the LEDs will turn green. Note: It will take several minutes for the LEDs to turn

from green to red after the input signal to the subwoofer is removed. Due to JBL's unique, high-output, high-efficiency amplifier design, power consumption is minimal when the subwoofer is not receiving a signal. Of course, the PB12 subwoofer can be

turned off, whenever desired. The PB10 must be unplugged if you do not wish to leave it in auto (standby) mode.

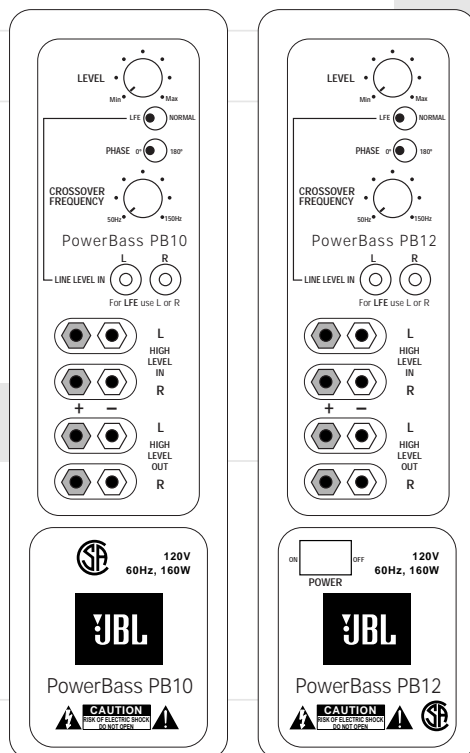
## Level Control

The subwoofer Level Control adjusts the volume of the subwoofer relative to the rest of the system. Proper level adjustment depends on several variables such as

room size, subwoofer placement, type of main speakers and listener position. Adjust the subwoofer level so that the volume of the bass information is pleasing to you.

## Crossover Adjustments

The Crossover Frequency Control determines the highest frequency at which the subwoofer reproduces sounds. If your main speakers can comfortably reproduce some low-frequency sounds, set this control to a lower frequency setting, between 50Hz – 100Hz. This will concentrate the subwoofer's efforts on the ultradeep bass sounds required by today's films and music. If you are using smaller bookshelf speakers that do not extend to the lower bass frequencies, set the low-pass crossover control to a higher setting, between 120Hz – 150Hz. This control is not used when the LFE switch is in the "LFE" position.



## Phase Control



The Phase Control determines whether the subwoofer's piston-like action moves in and out in phase with the main speakers or opposite the main speakers. There is no correct or incorrect setting. Proper phase adjustment depends on several variables such as subwoofer placement and listener position. Adjust the phase switch to maximize

bass output at the listening position.

Remember, every system, room and listener is different. There are no right or wrong settings; this switch offers the added flexibility to adjust your subwoofer for optimum performance for your specific listening conditions without having to move your speakers. If at some time

in the future you happen to rearrange your listening room and move your speakers, you should experiment with the phase switch in both positions, and leave it in the position that maximizes bass performance.

# TROUBLESHOOTING

**If you used the high-level (speaker) inputs and there is no sound from any of the speakers:**

- Check that receiver/amplifier is on and a source is playing.
- Check that powered subwoofer is plugged into an active electrical outlet and is switched on.
- Check all wires and connections between receiver/amplifier and speakers. Make sure all wires are connected. Make sure none of the speaker wires are frayed, cut or punctured.
- Review proper operation of your receiver/amplifier.

**If there is low (or no) bass output:**

- Make sure the connections to the left and right "Speaker Inputs" have the correct polarity (+ and -).
- Make sure that the subwoofer is plugged into an active electrical outlet and (PB12 only) switched on.
- Adjust the crossover point.
- Flip the Phase Control switch to the opposite position.
- If you are using a Dolby Digital/DTS receiver or processor, make sure that the subwoofer adjustments on the receiver/processor are set up correctly.
- Slowly turn the Level Control clockwise until you begin to hear the desired amount of bass.

**If you used the line-level inputs and there is no sound from the subwoofer:**

- Check that receiver/amplifier is on and a source is playing.
- Check that powered subwoofer is plugged into an active electrical outlet and is switched on.
- Check all wires and connections between receiver/amplifier and subwoofer. Make sure all wires are connected. Make sure none of the wires are frayed, cut or punctured.
- Review proper operation of your receiver/amplifier.
- Slowly turn the Level Control clockwise until you begin to hear the desired amount of bass.
- Make sure that you have configured your receiver/processor so that the subwoofer/LFE output is on.