

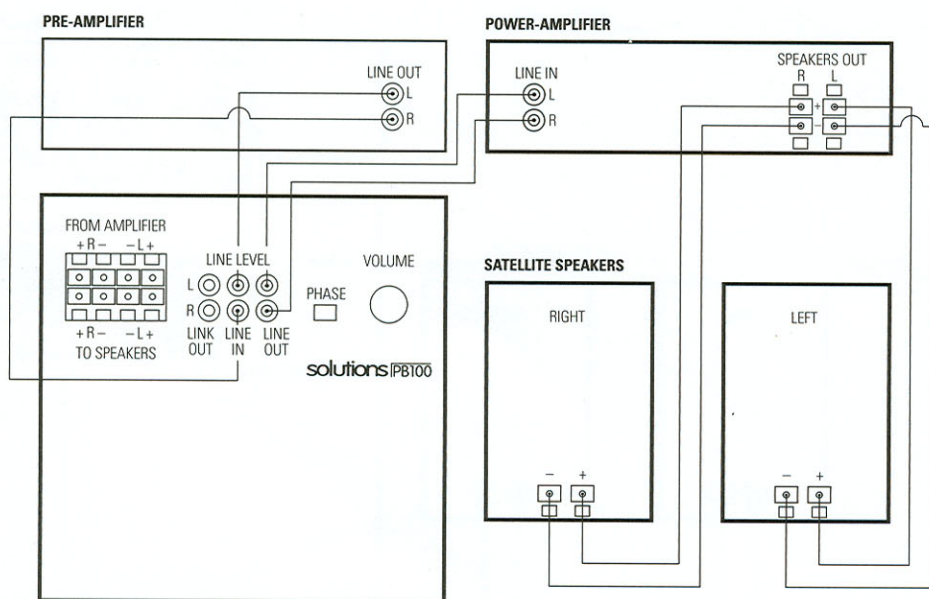
User Manual

Active Subwoofer

SOLIDTM

solutions | PB100

Figure 1



SOLID Solutions PB100

English 2

Deutsch 4

Nederlands 6

Italiano 8

Español 10

Português 12

Français 14

Dansk 16

Ελληνικά 18

Русский 20

Figure 2

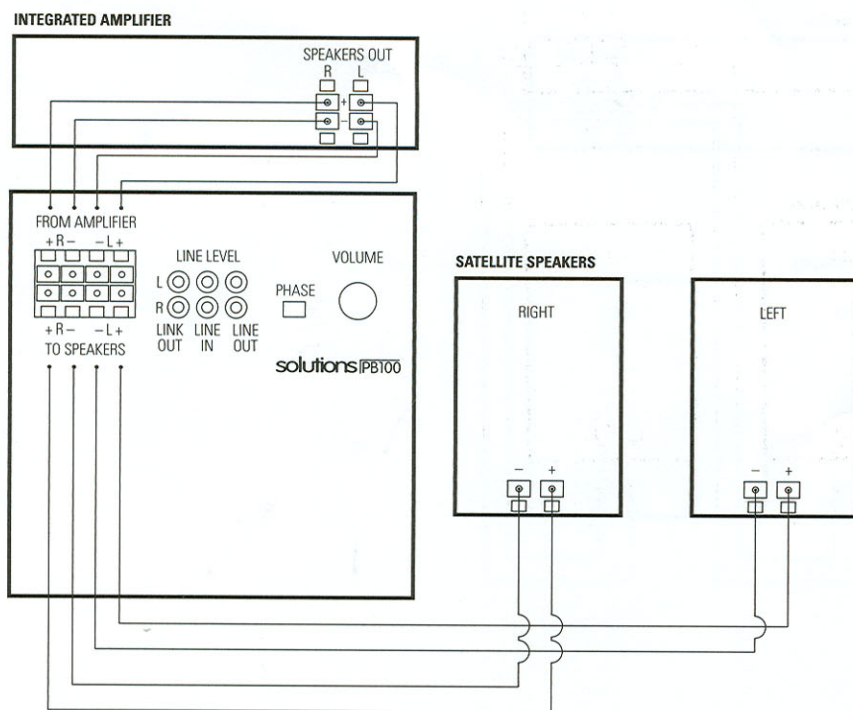


Figure 3

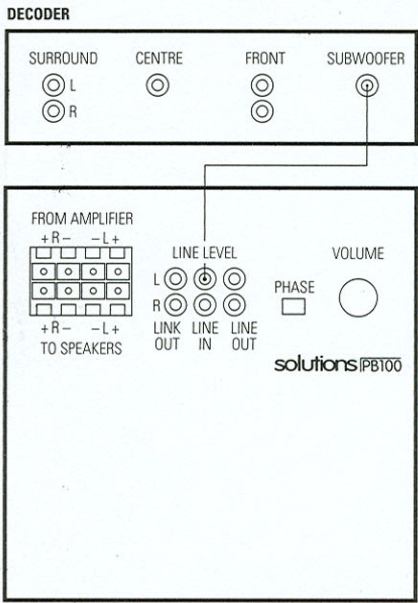


Figure 4

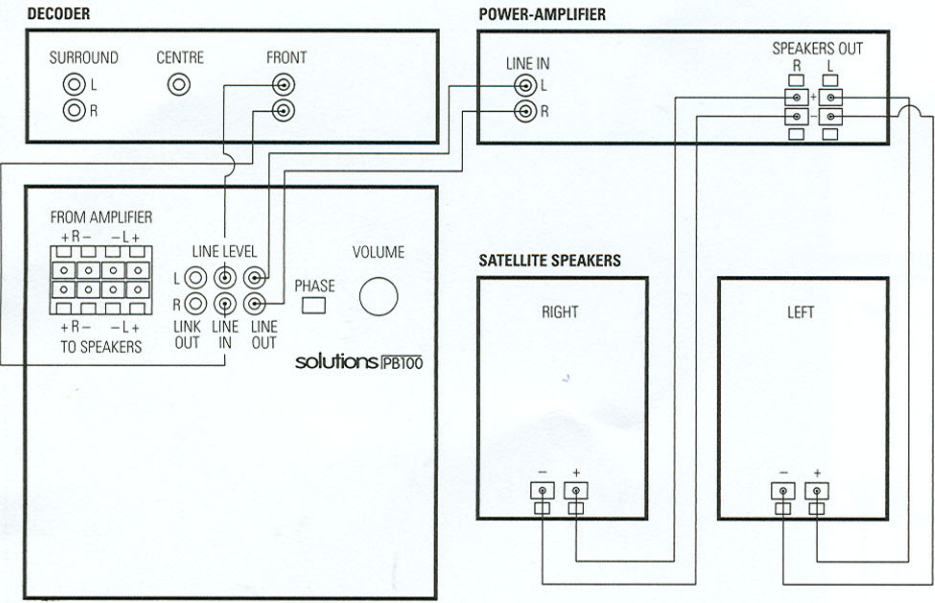
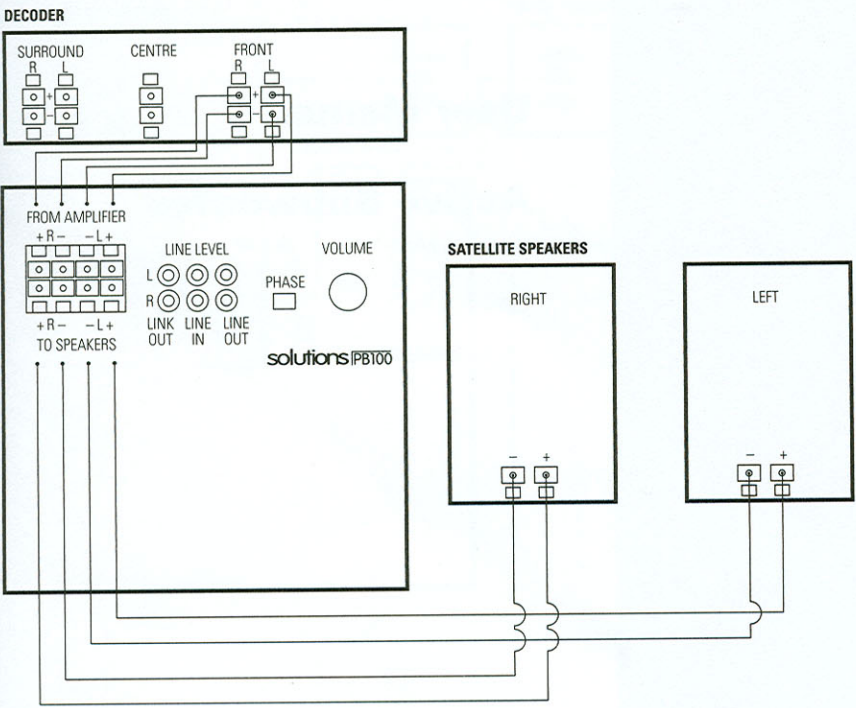
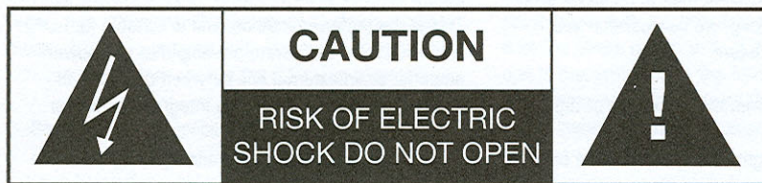


Figure 5



SAFETY INSTRUCTIONS



CAUTION:

To reduce the risk of electric shock, do not remove the back panel. No user-serviceable parts inside. Refer servicing to qualified personnel.



Explanation of Graphical Symbols

The lightning flash within an equilateral triangle is intended to alert you to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute an electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert you 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 appliance is operated.
2. Retain Instructions – The safety and operating instructions should be retained for future reference.
3. Heed Warnings – All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.
5. Water and Moisture – The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool and the like.
6. Carts and Stands – The appliance should be used only with a cart or stand that is recommended by the manufacturer.
7. Wall or Ceiling Mounting – The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should be used with the amplifier panel vertical; it should not be situated on a bed, sofa, or similar surface that may block the ventilation of the amplifier; or placed in an inadequately ventilated built-in installation, such as a bookcase or cabinet, that may impede the flow of air to the rear-mounted amplifier panel.
9. Heat – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances that produce heat.
10. Power Sources – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance. Models for use with 100-120V power supplies are fitted with a polarised plug which should be used only with an approved polarised receptacle. To prevent electric shock, match wide blade of plug to wide slot and fully insert to prevent blade exposure.
11. Grounding or Polarisation – The appliance should not be grounded. When using an extension power-supply cord or a power-supply cord other than that supplied with the appliance, it should be 2-core, fitted with the appropriate moulded-on plugs and carry safety approval appropriate to the country of use.
12. Power Cord Protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed on or against them, paying particular attention to cords at plugs, convenience receptacles and the point where they exit from the appliance.
13. Cleaning – The appliance should be cleaned only as recommended by the manufacturer.
14. Non-use Periods – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
15. Object and Liquid Entry – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
16. Damage Requiring Service – The appliance should be serviced by qualified personnel when:
 - a. The power-supply cord or the plug has been damaged; or
 - b. Objects have fallen, or liquid has been spilled into the appliance; or
 - c. The appliance has been exposed to rain; or
 - d. The appliance does not appear to operate normally, or exhibits a marked change in performance; or
 - e. The appliance has been dropped, or the enclosure damaged.
17. Servicing – The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

WARNINGS:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

OBSERVE ALL WARNINGS ON THE EQUIPMENT ITSELF. TO AVOID ELECTRICAL SHOCK, DO NOT OPEN THE ENCLOSURE OR REMOVE THE AMPLIFIER FROM THE REAR PANEL.

THERE ARE NO USER SERVICEABLE PARTS INSIDE.

REFER ALL SERVICE QUESTIONS TO AN AUTHORISED SOLID DEALER.

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS (POLARISED) POWER PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ENSURE THAT THE VOLTAGE INDICATED ON THE AMPLIFIER PANEL MATCHES THAT OF THE POWER SUPPLY.

THE MAINS FUSE IS LOCATED INSIDE THE AMPLIFIER MODULE. REPLACEMENT MUST BE OF THE SAME TYPE AND RATING AS SUPPLIED AND FITTED BY AN AUTHORISED SOLID DEALER.

THE EQUIPMENT SHOULD NOT BE EARTHED (GROUNDED).

IMPORTANT FOR UK ONLY:

The wires in this mains lead are coloured in accordance with the following code:

— blue:	neutral
— brown:	live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

- the terminal in the plug which is marked with the letter E, or by the earth symbol  coloured green or green and yellow must be left unconnected.
- the wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
- the wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

DO NOT WALK THE UNIT ON ITS CONICAL FEET AS THIS MAY IMPAIR THE FIXING TO THE CABINET AND CAUSE DAMAGE.

Introduction

Congratulations and thank you for choosing SOLID.

This small versatile but powerful subwoofer speaker has been stylishly designed for SOLID.

To ensure the maximum sound quality we teamed up with B&W Loudspeakers for the acoustical engineering of this high quality subwoofer speaker.

Equipped with its own powerful high quality amplifier and easy to use controls, The PB100 makes your home cinema sound like real cinema. The PB100 has been designed to augment the bass performance of the SOLID range of speakers, but can also be used successfully with other speakers. Adding the PB100 to your system both extends the bass response and improves the midrange clarity of your existing speakers by reducing the demands on their bass units.

The PB100 is magnetically shielded for use close to a television screen.

Please read through this manual fully before using the PB100.

Some planning and experimentation will ensure you get the best out of the PB100 and this manual will guide you in this process. In addition, because the PB100 is connected to the power supply, it is important that you familiarise yourself with the Safety Instructions and heed all warnings.

We recommend that you retain this manual in a safe place for future reference.

SOLID supports a world-wide distributor network. If you should have a problem that your dealer cannot resolve, our local distributor will be only too willing to help you.

Unpacking

To avoid damage to the cabinet (and to minimise strain to yourself) when unpacking, we suggest that you adopt the following procedure:

- Remove any staples from the open flaps of the carton.
- Fold the open flaps right back and invert the carton and contents.
- Lift the carton away from the product.
- Remove the upper layer inner packing to reveal the base of the cabinet.
- Open the polythene bag and turn the cabinet right way up.

We recommend that you retain the packaging for future use.

Positioning the PB100

Because the PB100 produces only very low notes, positioning is easier than for full-range speakers. Best results are obtained if the PB100 is placed between the front speakers. If you use two PB100s then it is best to put one near each front speaker.

The PB100 is supplied with conical feet that raise the base of the cabinet clear of the floor to allow the down facing port to operate correctly. Do not reduce this clearance or bass performance will be degraded.

If the PB100 is to be used in a confined space (e.g. in custom furniture), the space must be ventilated to allow sufficient air to circulate and cool the unit. Depending on the volume of the enclosed space, it may be necessary to provide ventilation into the room. Ask your dealer for advice.

Electrical Connections

Disconnect all sound system equipment from the power supply until the signal connections have been made and checked. This avoids the risk of any damage whilst connections are made or broken.

The PB100 accepts inputs and outputs at either line level (RCA Phono sockets) or at speaker level.

However, you must not use a mixture of line level and speaker level connections in the same installation.

Stereo Audio (Using Line Level Connections)

(figure 1)

This is the preferred method, and is suitable for use when you have a separate pre-amplifier and power amplifier or an external link between the pre- and power amplifier sections in an integrated amplifier.

Connect the pre-amplifier left and right line level output socket(s) to the left and right LINE IN socket(s) of the PB100 and the same channel LINE OUT socket(s) of the PB100 to the line level input socket(s) of the power amplifier (figure 1).

In both cases, the satellite speakers are connected to the power amplifier output in the normal way.

However, the signal fed to them is now has the deep bass removed.

Stereo Audio (Using Speaker Level Connections)

(figure 2)

Use this method when you have an integrated amplifier with no access to a line level signal.

Connect the speaker level outputs of the power amplifier to the relevant channel INPUT FROM AMPLIFIER spring terminals of the PB100, taking care to connect positive to positive and negative to negative (figure 2). Connect the satellite speakers to the relevant channel OUTPUT TO SPEAKERS terminals of the PB100.

With this method of connection, the PB100 drive unit is still powered by its own internal amplifier and the signal fed to the satellite speakers has the deep bass removed.

Home Theatre (figures 3, 4 & 5)

If your decoder has a separate subwoofer output, connect it to one channel only (left or right) LINE IN socket (for line level) or FROM AMPLIFIER terminals (for speaker level) of the PB100 and feed the left and right front speakers directly from the decoder in the normal way (not via the PB100), using a separate power amplifier if necessary. (figure 3)

If your decoder has no dedicated subwoofer output, connect the PB100 to the left and right front outputs of the decoder and your left and right front speakers via the PB100, using either the LINE IN/LINE OUT sockets with separate power amplifiers (figure 4) or the FROM AMPLIFIER/OUTPUT TO SPEAKERS terminals (figure 5) in the same manner as described above for stereo amplifiers.

Using more than one PB100

Any number of PB100 units can be daisy chained together in either two-channel mono or single-channel mode. Using two or more units in a single installation can improve performance in the following ways:

- Cope with larger spaces.
- Enable greater maximum sound output – often useful for effectively reproducing special effects in Home Theatre applications.

If using line level connections, connect up the first PB100 as described above and then connect its LINK OUT socket(s) to the corresponding LINE IN socket(s) of the second PB100. Continue this process as required for more units.

If using speaker level connections, connect the first PB100 as described above and connect the FROM AMPLIFIER terminals of the second PB100 to either the corresponding power amplifier output terminals or the corresponding FROM AMPLIFIER terminals on the first PB100, whichever is more convenient.

Double Check the Connections

Before auditioning the sound quality of your new installation and fine tuning it, double check the connections.

- The phasing is correct – There should be no positive to negative connections (this applies to speaker level interconnects). If something is out of phase you may get a fuzzy sound with an imprecise and floating image, a lack of bass or a combination of the two.
- There are no left to right mix-ups – This can result, for example, in the orchestra being the wrong way round or, more disastrously, sounds on your home theatre going in the opposite direction to the action on the screen.
- Connect the SOLID Solutions PB100 power cord to the power outlet – we recommend that you switch the PB100 on before any power amplifiers receiving signals from it. Similarly switch off the PB100 last.

Fine Tuning the System

Set the system up in the preferred position and play some music with a continuous bass content. Listen with the phase switch in both positions. The correct one is that which gives the fullest bass. When using more than one PB100, ensure that each one has its phase switch set the same way.

If at any time you make changes to the amplification of the system such that you change from speaker to line level connections, it is worth checking the phase setting again.

Set the loudness of the PB100 relative to the satellite systems to your liking. Use a wide variety of programme material to get an average setting. One that sounds impressive on one piece may sound overpowering on another.

If you get problems with uneven bass it is worth experimenting with the placement of the PB100. What may seem like small changes in position – 15cm (6in) or so – can have a profound effect on the sound. If you alter the position of the PB100 appreciably, you should check the level setting on the subwoofer amplifier, but only after re-setting the phase correctly.

Taking Care of your SOLID Solutions PB100

The cabinet normally only requires dusting. If you wish to use an aerosol cleaner, remove the grille first by gently pulling it away from the cabinet. Spray onto the cleaning cloth, not directly onto the cabinet. The grille fabric may be cleaned with a normal clothes brush after removing the grille from the cabinet.

Avoid touching the drive unit, as damage may result.

Do not use the PB100 as a table. When in use, objects left on top of the PB100 are liable to rattle. In particular, avoid the risk of liquids being spilled (e.g. from drinks or vases of flowers).

If the system will be out of use for a long period, disconnect the PB100 from the power supply.

PB100 Specifications

Description

Active vented-box subwoofer system

Drive Unit

One 250mm (10in) dia long-throw with pressed fibre cone and magnetic shielding

System Frequency Response

-3dB at 35Hz and 80Hz

Amplifier:

Discrete MOSFET

Power Output: 70W continuous

Input Impedance: 22k Ω

Signal / Noise: 96dB

Functions: Input Level
Phase 0°/180°

Inputs: Line In (RCA Phono)
Speaker Level In (Spring Terminals)

Outputs: Line Out (RCA Phono)
Link Out (RCA Phono)
Speaker Level Out (Spring Terminals)

Low-pass Filter

Active 2nd-order at 80Hz

High-pass filter

Low level: passive 1st-order
-3dB at 90Hz (47k Ω load)

Speaker level: passive 1st-order
-3dB at 90Hz (8 Ω load)
(response of passive filters
dependent on load impedance)

Internal Volume

35 litres (1 1/4 cu ft)

Dimensions

Height: 415mm (16 3/8in) inc. feet.

Width: 353mm (13 7/8in)

Depth: 401mm (15 3/4in)

Net Weight

12kg (26.5lb)

Finish

Cabinet: Black

Grille: Black

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