

THE HOME THEATRE ENVIRONMENT

FRONT, CENTRE AND REAR CHANNELS

The front channel loudspeakers should be placed on either side of the television screen, 2 to 3 metres apart, and rotated slightly towards the listeners.

As the Centre speaker carries the dialogue effects, it should be placed central to the listening position and close to the TV screen. Operating height is important. Ideally, the front and centre channel speakers should be operated at the same height and with the tweeters at ear level to a seated listener.

Place the Rear speakers 2.5 - 3.5 metres apart in a high position behind the listener. If you are using dipole or special surround speakers follow the instructions for those units.

SUBWOOFER

As the ear is unable to detect the direction from which deep bass originates, this allows freedom in positioning the subwoofer. Varying the distance from the wall will alter the amount of bass. Some prefer to place the subwoofer against a corner of the room. This arrangement gives more bass at the possible expense of clarity.

LOUDSPEAKER SIZES

Many digital AV Processors require you to specify the size of speakers in the various channels. These are usually 'Large' or 'Small'. Unless your loudspeakers are large floor standing units, you should choose 'Small' for the Front channels, as the subwoofer is going to be better at providing clean, deep and louder bass. Choose 'Small' for the surround channels and also for the Centre channel, so that any bass from these channels will be directed to the subwoofer.

Set the 'Subwoofer' option on the processor to 'On' or 'Yes'.

SETTING LEVELS

Once the loudspeaker settings have been finalised, put the AV amplifier into its 'Test' mode (see instructions supplied with your processor.) Adjust the levels until all channels are reproduced at equal loudness.

You may need to adjust the subwoofer output level. Avoid setting too high a level or you will swamp the sound with bass which be tiring to listen to and may limit the subwoofer's ability to respond to large bass transients. Set a sensible level going into the subwoofer. The subwoofer volume control should be between 12 o'clock and 3 o'clock.

LFE

The Low Frequency Effects channel was designed as an additional bass channel with its own dedicated subwoofer. In practice however, if all the speakers are set to Small, the LFE channel will be combined with the bass from other channels and all this feeds into the subwoofer. When you set the LFE level from your AV processor, use care with this setting as the LFE channel may contain powerful low frequencies which, although normal in a cinema, may overload a domestic subwoofer.

If, during a programme, you hear popping or thumping noises coming from the subwoofer, immediately turn the AV Processor's volume level down and then back off the LFE level. If this does not cure the problem, back off the volume level at the subwoofer.

Please read the relevant sections of your AV amplifier manual and familiarise yourself with the various issues. If you are unsure, consult your dealer for help.

CARE AND MAINTENANCE

The loudspeaker cabinets can be cleaned with a damp cloth or with a spray furniture polish and a soft cloth. Apply the spray sparingly to the cloth and then polish the cabinet. Never apply spray directly to the cabinet.

GUARANTEE & SERVICE

In the unlikely even that your unit develops a fault you should return it to your Wharfedale dealer using the original packing to ensure safe shipping.

The terms of your guarantee may vary from country to country but in all locations the guarantee excludes:

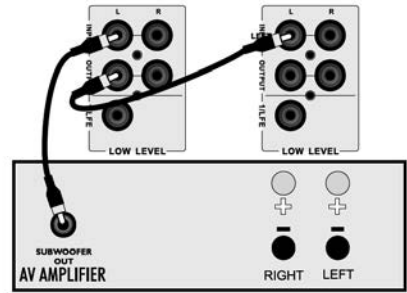
All damage caused through accident, misuse, wear and tear, neglect, incorrect installation, adjustment or repair by unauthorised personnel.

Liability for damage or loss occurring in transit to or from the purchaser.

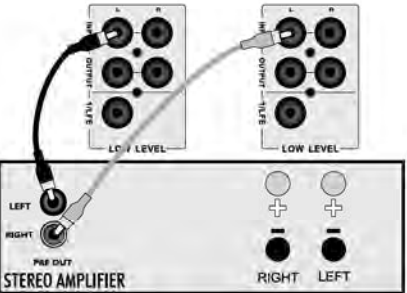
Wharfedale will not be liable for any consequential damage, loss or injury, arising from or in conjunction with this equipment.

CONNECTING TWO SUBWOOFERS

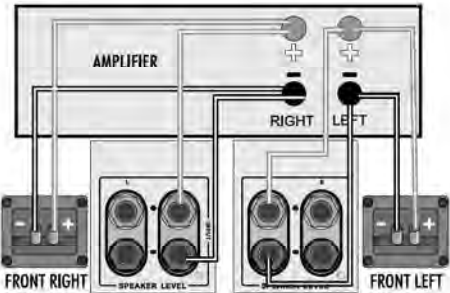
SUBWOOFER  
LINE CONNECTION



STEREO  
LINE CONNECTION



HIGH LEVEL  
SPEAKER  
CONNECTION



TROUBLESHOOTING

If your system is not working properly please work through this checklist before returning a unit to your dealer. Before investigating the cause of a problem, always switch off the system at the mains.

Symptom	Possible Cause
No Sound	System not switched on; Speaker cables shorting terminals out; Wrong source selected
Sound lacks bass content Bass reproduction indistinct	Subwoofer not switched on; Subwoofer phase incorrect; Subwoofer crossover control too low
Excessive bass distortion at low volume levels	Subwoofer level set too high; LFE level set too high; Subwoofer incorrectly wired
Excessive or distorted bass at high volume levels	System level set too high; Bass control set too high; Subwoofer too close to room corners
Distorted or rattling sounds at high volume levels	System level set too high; Objects placed on subwoofer; Objects too close to subwoofer
Popping sounds or thumps from the subwoofer	System level set too high; Subwoofer level set too high
Indistinct sound Poor localisation of effects	One or more loudspeakers is out of phase (Read the manual for correct connection procedure)
Television picture is distorted or there is colour distortion	Subwoofer too close to TV. (Switch off system and TV. Move units away. Leave 15 mins. Switch on)

Specifications

Description/Format

Drive Units

Frequency Response

Amplifier Power Output

Peak Power Output

Line Input Sensitivity

Crossover Range

Inputs

Input Impedance

Signal-to-noise ratio (S/N)

Avg. Max Output @1m

Features

Dimensions

Net weight

Accessories

\*Design and specifications are subject to change without further notice.

POWERCUBE  
SPC-8  
Subwoofer

Active Dynamic-Drive IB subwoofer system

1 x (8")200mm cone long-throw

40 - 120Hz ±3dB

150W

330W

200mV for maximum output

30 - 150Hz

Stereo Line In (2 x RCA Phono), Mono (LFE) Line In (RCA Phono), Stereo Speaker Level In

Line In: 10kΩ

LFE: 5kΩ

Speaker Level In: 1kΩ

>85dB

110dB

Phase inversion, Auto on-off built in

345mm x 295mm x 268mm

7.3kg

IEC power cord, spikes as standard

POWERCUBE  
SPC-10  
Subwoofer

1 x (10")250mm cone long-throw

35 - 120Hz ±3dB

215W

450W

200mV for maximum output

30 - 150Hz

Stereo Line In (2 x RCA Phono), Mono (LFE) Line In (RCA Phono), Stereo Speaker Level In

Line In: 10kΩ

LFE: 5kΩ

Speaker Level In: 1kΩ

>85dB

114dB

Phase inversion, Auto on-off built in

382mm x 352mm x 305mm

11.4kg

POWERCUBE  
SPC-12  
Subwoofer

1 x (12")300mm cone long-throw

30 - 120Hz ±3dB

400W

850W

200mV for maximum output

30 - 150Hz

Stereo Line In (2 x RCA Phono), Mono (LFE) Line In (RCA Phono), Stereo Speaker Level In

Line In: 10kΩ

LFE: 5kΩ

Speaker Level In: 1kΩ

>85dB

117dB

Phase inversion, Auto on-off Switch

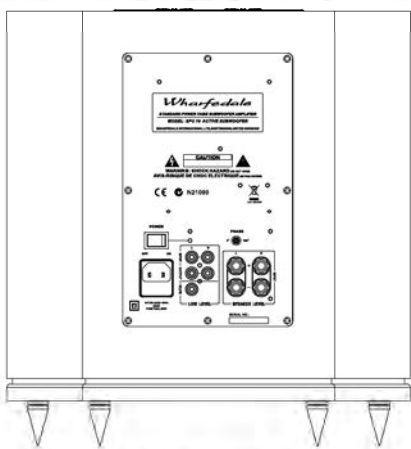
442mm x 400mm x 355mm

15kg

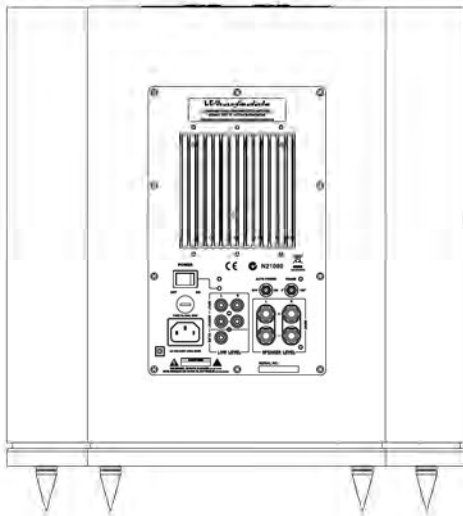
POWERCUBE **SPC-8**



POWERCUBE **SPC-10**



POWERCUBE **SPC-12**



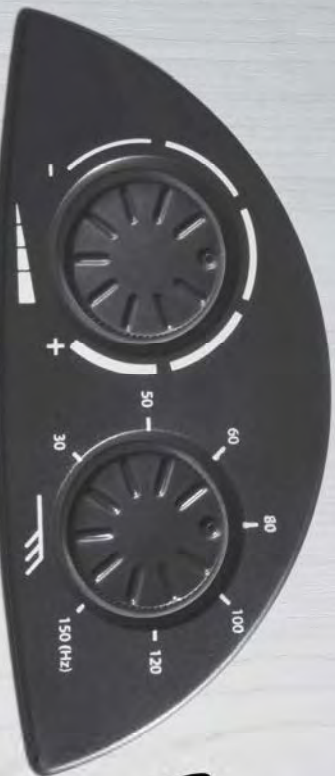
# POWERCUBE

## ACTIVE SUBWOOFER

### Instruction Manual



**AVAILABLE AT  
DIGITAL CINEMA**



# Wharfedale

**BRITAIN'S MOST FAMOUS LOUDSPEAKERS**

Service & Information

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UK

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Unit4

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Stukeley Meadows Industrial Estate

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Wharfedale

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Tel: +44(0)1480 447700 Fax: +44(0)1480 431767 <http://www.wharfedale.co.uk>  
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Wharfedale is a member of the International Audio Group. CODE: WH10-MNL0009

For information on other authorised service centres worldwide contact Wharfedale International in the U.K.

A worldwide distributor list is available on the Wharfedale website:  
[www.wharfedale.co.uk](http://www.wharfedale.co.uk)

The name 'WHARFEDALE' is a registered trademark of Wharfedale International Ltd.  
Wharfedale has a policy of continuous product development and reserves the right to change specification without notice.


Wharfedale is a member of the International Audio Group.




IMPORTANT INFORMATION: PLEASE READ CAREFULLY

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN!



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.

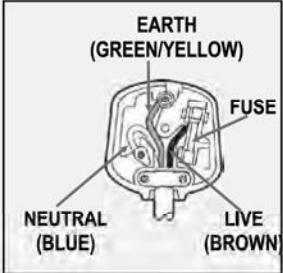


The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Read Instructions: All the safety and operating instructions should be read before the product is operated. Retain Instructions: The safety and operating instructions should be retained for future reference. Heed Warnings: All warnings on the product and in the operating instructions should be adhered to. Follow Instructions: All operating and use instructions should be followed. Cleaning: Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning. Attachments: Do not use attachments not recommended by the product manufacturer as they may cause hazards. Water and Moisture: Do not use this product near water - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement; or near a swimming pool; and the like. 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. Moving the Product: 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. 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. Power Supply Cords: 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. 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. Polarisation: This product is 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. 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. Overloading: Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock. 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. Heat: The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat. 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. Damage Requiring Service: Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a) When the power supply-cord or plug is damaged.
  - b) If liquid has been spilled, or objects have fallen into the product.
  - c) If the product has been exposed to rain or water.
  - d) If the product does not operate normally by 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.
  - e) If the product has been dropped or damaged in any way.
  - f) When the product exhibits a distinct change in performance - this indicates a need for service.
- Replacement Parts: When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorised substitutions may result in fire, electric shock, or other hazards. 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. WARNING: To reduce the risk of fire or electrical shock do not expose this product to rain or moisture. The product must not be exposed to dripping and splashing and no object filled with liquids such as a vase of flowers should be placed on the product. DO NOT allow foreign objects to fall into any of the units. NO naked flame sources, such as candles must be placed on the product. NEVER remove any components and refer all servicing to qualified personnel. This product contains no user serviceable parts. WALL OR CEILING MOUNTING: The product should be mounted to a wall or ceiling only as recommended by the manufacturer. WARNING: The mains power switch for this appliance is located on the rear panel. To permit free access to this switch the apparatus must be located in an open area without any obstructions. The IEC socket which fits into the mains connector located on the rear panel of this unit is a moulded unit. If this becomes damaged in any way do not attempt to repair or connect a replacement plug to the cord. Consult your dealer for a suitable replacement. CAUTION: Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this device.

ESSENTIAL INFORMATION FOR UK USERS The power cord on your Wharfedale powered subwoofer may be supplied with a plug incorporating a fuse, the value of which is indicated on the pin face of the plug. Should the fuse need to be replaced, an ASTA or BSI approved BS1362 fuse must be used of the same rating. If the plug is cut off it must NOT be re-used. Dispose of any such plug safely. There is a danger of electric shock if a cut-off plug is inserted into a mains socket. The wires in the mains lead are coloured in accordance with the following code: Green and Yellow- Earth; Blue- Neutral; Brown- Live. As the colours of the wires in the mains lead may not correspond with the markings identifying the terminals in the replacement mains plug, proceed as follows: The wire coloured Blue must be connected to the terminal marked with the letter 'N' or coloured Black. The wire coloured Brown must be connected to the terminal marked with the letter 'L' or coloured Red. The wire coloured Green and Yellow must be connected to the terminal marked with the letter 'E', or coloured Green, or Green and Yellow, or marked with the Earth symbol.



INTRODUCTION

Congratulations on your choice of Wharfedale PowerCube powered subwoofer. The PowerCube range is available in Standard version or Deluxe version, which features high gloss finish. Please read this owner's manual carefully which will help you install the equipment and get the maximum listening pleasure from its use. If you decide to sell this unit or pass it on to another user, please include this instruction manual with the product. UNPACKING Remove the polystyrene packing pieces and then lift out the subwoofer. Remove the plastic bag. Retain all the packing and the carton in case it is necessary to transport the unit in the future.

DO NOT attempt to lift the subwoofer via the polythene bag. Support it carefully. If the subwoofer is too heavy, get someone to help you. POWER CONNECTIONS This subwoofer is factory set to operate from the mains voltage marked on the amplifier panel. Before connecting check this voltage is correct for your mains supply.

- 230 volt products - 220 volts to 240 volts
- 115 volt products - 110 volts to 120 volts

If you move to an area with a different mains supply, consult your Wharfedale dealer for advice.

PRECAUTIONS

NEVER remove any parts or components and refer all servicing to qualified personnel. This product contains no user serviceable parts. DO NOT connect the mains power to any signal input terminal on the subwoofer Control Panel DO NOT change any connections to the subwoofer or your system without first switching off the power to all the components in your AV system. DO NOT use your amplifier at its maximum volume setting. The resulting distortion may damage your loudspeakers and subwoofer. The position of the Volume Control on your amplifier is NOT a reliable guide as to 'how loud' your equipment will play. Allow your amplifier some 'headroom' so it can operate without stress. DO turn down the volume control on your amplifier or receiver before turning the equipment on or off. This will protect your subwoofer against switching 'thumps' and other spurious signals. Make sure that adequate clearance (at least 450mm) exists between the subwoofer and the TV otherwise the powerful drive-unit magnets may interfere with the colours on the screen. If this occurs, switch the TV set off. After 15 minutes switch on the TV set. The internal circuits of the TV set should now restore normal colour balance.

WHARFEDALE POWERCUBE CONNECTIONS

Standby LED Indicator

Volume Control

Crossover Frequency Control

POWERCUBE SPC8 & SPC10

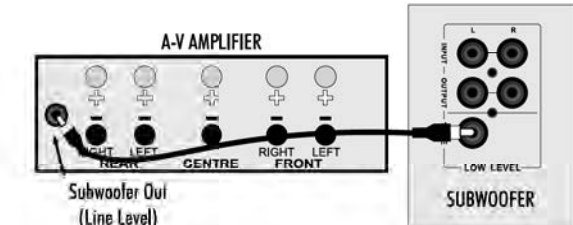
CONTROL PANEL GUIDE

- 1 Power On-Off Switch
- 2 Line Level Inputs
- 3 Mains Input Socket
- 4 LFE Input
- 5 Phase Control
- 6 Speaker Level inputs
- 7 Line Level Outputs
- 8 Mains Power Fuse
- 9 Auto Power On-Off Switch

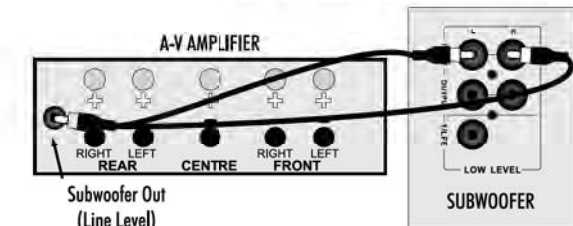
POWERCUBE SPC12

LINE CONNECTIONS TO AN A/V PROCESSOR

Your Powercube subwoofer has been designed for optimum performance with a Digital processor. If your AV processor has a line level or LFE subwoofer output you should use this connection. You will need to purchase a single screened RCA phono lead from your dealer. Connect this lead to the LFE input of the Subwoofer as shown below.

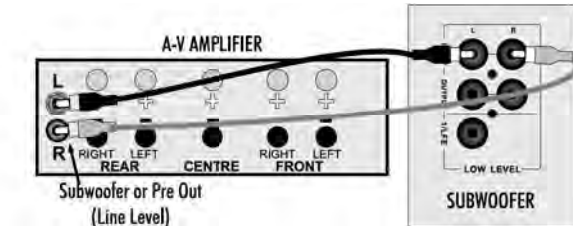


Alternatively, you may use a split mono lead from the processor to both inputs of the subwoofer. In this case the input level at the subwoofer will be slightly higher.



STEREO LINE OUTPUT CONNECTIONS

If your amplifier has a spare preamplifier output or a stereo subwoofer output, connect the subwoofer as shown. You will need a stereo screened RCA phono cable.



SPEAKER LEVEL CONNECTIONS

The high level speaker connections should be used only if your amplifier does not have a line level subwoofer output. In this connection the subwoofer is fed together with the front loudspeakers. For this you will need two extra twin core cables. Choose a good quality audio speaker cable of reasonable size. Avoid using cheap 'bell' or 'zip' cables. Audio speaker cable has a polarity stripe or rib along one conductor to simplify connecting your speakers.

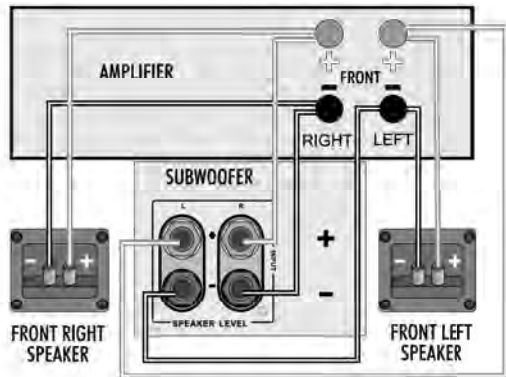
Split the cable at each end to a depth of 30mm. Strip about 7mm of insulation from each end and lightly twist to gather the wire strands.

The Speaker Level connectors are screw terminals located on the control panel. Unscrew a terminal and insert the cable into the hole at the base. Re-tighten the terminal securely. Make sure that the terminal grips the bare wire and there are no loose strands which could touch adjacent terminals.

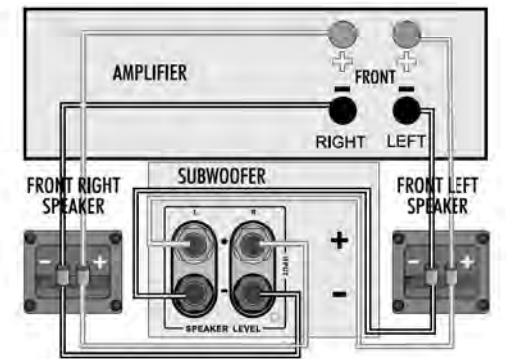
There are two methods of connecting the subwoofer.

A: Ensure the Front loudspeakers are correctly connected.

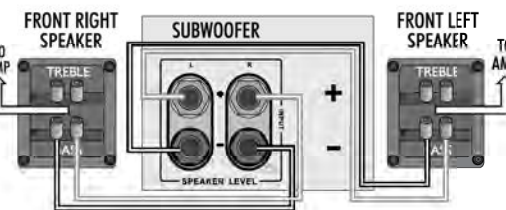
Using one of the additional twin core cables, connect the left speaker terminals on the sub bass unit to the front left speaker terminals on the amplifier. Connect the Red (+) speaker terminal on the amplifier to the Red (+) terminal on the subwoofer. Connect the Black (-) speaker terminal on the amplifier to the Black (-) terminal on the subwoofer. Now connect the right speaker terminals on the subwoofer to the front right speaker terminals on the amplifier.



B: Alternatively you may connect the subwoofer to the Front speakers instead of to the amplifier.



If the speakers are bi-wired, you must connect the subwoofer to the bass terminals only.



OPERATION

POSITIONING THE UNIT

Although the unit may be placed almost anywhere in the room, even behind the sofa or the TV set, we recommend that it be placed in front of the listener and as central to the listening position as possible. The subwoofer should not be operated within 450mm of a television set as the drive unit magnet may distort the picture. We suggest you position the subwoofer about 20cm (8 inches) from the wall. Placing the unit close to the wall will enhance the bass; placing it across the corner of the room will increase the bass further, possibly at the expense of clarity. Experiment with a variety of locations and sources before making a final decision.

As the subwoofer is a powered unit there should be a mains outlet within easy reach.

The bass ports are mounted at the rear of the subwoofer and should not be obstructed by placing the unit against soft furnishings. Do not place the subwoofer close to surfaces or objects that may rattle. The floor under the subwoofer should be sound with no loose floorboards, etc.

SETTING UP

Set the subwoofer power switch to OFF. Turn the system Volume Control to minimum. Re-check all system connections. Connect the supplied subwoofer power lead to the IEC power socket on the subwoofer and connect the mains plug into the into the wall socket. Switch on the mains power. Set the subwoofer volume control to the mid position (12 o'clock) before proceeding.

VARIABLE CROSSOVER This control should initially be set to 85 Hz when the subwoofer is used with small bookshelf speakers and to 65 Hz when used with large floor standing speakers.

PHASE SWITCH: The Phase switch should be initially set to 0°.

AUTO SWITCH: the Auto switch should be initially set to OFF.

FINE TUNING

Switch on the subwoofer power switch and check that the power indicator on the front of the cabinet glows. Now switch on the system. Play a programme with extended bass and set the system volume to a reasonable level. Adjust the subwoofer volume control to produce the desired level of bass. Do not overdo things!

PHASE SWITCH: If the bass is indistinct or lacks depth, the Phase switch may need adjustment. Set the switch to 0° and listen carefully to some music with extended bass. If there is insufficient bass output from the subwoofer set the Phase switch to 180°. Select the position which produces the most natural, extended bass.

CROSSOVER ADJUSTMENT. This adjusts the blend between the subwoofer and the main speakers, and enables the system to be set up for optimum bass performance. The higher settings are for use with small bookshelf loudspeakers, the lower settings for large floorstanding models. If you choose too low a setting with small speakers, there will be a 'hole' in the bass response; too high a setting with large speakers will result in the upper bass becoming bloated.

AUTO SWITCH. In normal mode the subwoofer is permanently on. This may result in low level hum or noise from the subwoofer if the rest of the system is switched off and the subwoofer is left switched on. Setting the AUTO switch to ON will automatically turn the subwoofer on when a signal is detected at any of the inputs and turn it off (Standby Mode) after a period of inactivity. We recommend that the AUTO switch be set to ON for normal operation.

In AUTO mode the subwoofer will switch to Standby mode if no audio signal is detected for 25 minutes and the indicator on the top will glow red. The subwoofer will turn itself on automatically when an audio signal is present and the indicator on the top will be extinguished. If your subwoofer is disconnected from the mains power, or the power switch is 'Off', the indicator will be extinguished, both SPC8 and SPC10 have AUTO SWITCH built in to the amplifier module.

MAINS OPERATION

When the system is not in use for extended periods, we suggest you switch off the subwoofer to protect it from switching noises caused by domestic appliances, etc. The best practice is to switch the complete system on and off from a central point. If you play the system with the subwoofer switched off you will get no bass!

Always turn the main volume control to minimum when you switch the system on or off.