radiance
series

Owners Manual

ACOUSTIC ENERGY

Introduction

Thank you for purchasing these Acoustic Energy Radiance Series loudspeakers.

These high-performance loudspeakers utilise some of the finest materials and most advanced technology available. They are voiced according to Acoustic Energy's core values of musicality, timing, neutrality and, above all - realistic reproduction of the source material.

More than any other Hi-Fi product, speakers are sensitive to installation so please take a little time to read this manual and follow, where practical, the guidelines it contains.

Careful installation will help ensure that your Radiance speakers perform optimally. Should you have any questions not covered here please take a look at the support section on our website - www.acoustic-energy.co.uk

Radiance Series loudspeakers should provide years of maintenance-free enjoyment and are guaranteed against defects in materials, manufacture and workmanship for three years from the date of purchase. For full details please refer to the Warranty section on page 5 of the manual.

This manual covers all Radiance Series except Radiance Sub.

Technology

The Radiance Series loudspeakers incorporate various advanced technologies, including -

· Aluminium drive units
· Ring-radiator tweeters
· Curved, acoustically braced cabinets
· DXT® lens

Most interesting of these features (and a first for Acoustic Energy) is the DXT® lens. This adjusts dispersion from the tweeters to match that of the mid/bass drivers.

The lens improves two components of the sound -

Firstly, integration between high and low frequencies is more natural and seamless than in conventional speakers. This is crucial for realistic reproduction of the midrange - the human voice in particular.

Secondly, the lens creates far better integration of sound into the room environment. This integrated sound is more expansive and "live" than you would usually hear from a conventional speaker, while remaining easy to listen to. Detail is abundant but always part of the musical whole.

Installation

Handling - Loudspeakers are relatively delicate, precision engineered products that can be damaged by inappropriate handling. Please take care when unpacking or moving them not to touch any of the drivers. Damage to a driver will at best degrade performance and at worst result in complete failure.

Set Up - Radiance one - Ideally the Radiance ones should be mounted on dedicated speaker stands tall enough to place the tweeter at, or slightly above ear level from a seated listening position. The use of wall mounting via brackets or shelf/cabinet placement are viable alternatives, though performance in these locations may be reduced from the optimum.

Radiance two/three - As floorstanding speakers both models require placement clear of room boundaries and should be mounted on spiked feet (supplied) for best performance. If spikes are inappropriate for your floor covering, metal protection pads, coins for example, may be used between the spike and the floor.

Radiance centre - For use in home theatre systems either directly above or below the screen. The centre can be stood on a furniture unit (using supplied rubber feet), integrated within a screen stand, mounted on a dedicated speaker stand or on a wall using appropriate bracket hardware.

Connecting

Each Radiance Series speaker has two pairs of binding-post terminals. These terminals can accept either stripped wire, spade connectors, or 4mm plugs. Each of these termination methods are potentially equally effective and the choice is likely to be influenced by the type of speaker cable used. Your dealer, distributor or cable manufacturer will be able to offer advice.

The two pairs of binding posts are mechanically joined via gold-plated bridging links and can be single or bi-wired.

Single-wiring

Simply connect the speaker cable to the correct polarity terminal on the speaker (positive - red, negative - black). Either top or bottom terminals can be used. Ensure the speaker cable is attached to the amplifier in the correct polarity before use. (Note - you will have two unused terminals, one red, one black on the speaker when wired this way, this is correct when the bridging links are in place)

Bi-wiring

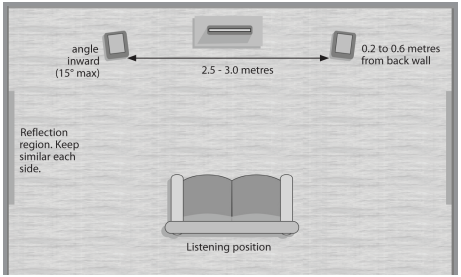
To bi-wire you will need to unscrew the caps on the binding posts and remove the bridging links before connection. There are multiple ways to bi-wire/bi-amp a speaker, consult your Hi-Fi dealer for the best advice on how to do this with your particular system. They will also be able to advise on cable choice to best match your system.

Stereo Postitioning

Speaker interaction within the room environment is one of the largest factors with regards to its performance, having even more influence on sound quality than a change of source or amplification.

In an average sized and furnished listening room (say 4m x 5m) you should aim for a few basic positional points of reference for speaker placement* -

· Between 0.2 and 0.6 metres from the rear wall
· Between 0.4 and 0.8 metres from side walls
· Between 2.5 and 3.5 metres apart
· Clear of corners
· Maximum toe-in of 15° towards listening position



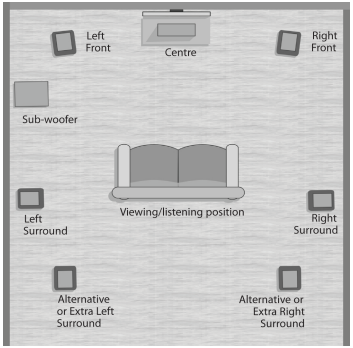
Typical optimum stereo room layout

*These are guidelines only - positioning should be tailored until you find a preferred sound in your room.

Home Theatre Positioning

Room layout has a large effect on home theatre systems due to the number of speakers involved. Below is a diagram of an optimal layout, this may be hard to achieve in a typical home so it is worth trying to stick to a few general points if possible -

· Front left and right speakers should be equal distance from the centre speaker
·Try to place the front left and right speakers a reasonable distance apart (where possible) to create a good spread of sound.
· The height of the rear speakers is not as crucial as the fronts, they are mainly used for effects and atmosphere



Typical optimum home theatre room layout

Listening

It is wise before listening to your speakers to make one final check of the cables and connections. If all appears well, begin listening at a relatively low level to confirm the system is operating as expected. Only increase the volume if you are happy that the sound at low levels is fundementally as expected. If you are not convinced all is functioning correctly, turn off the system and re-check all the cables and connections.

If you are concerned about any aspect or operation of the system consult your Acoustic Energy dealer or distributor for further advice.

Radiance Series speakers may take a little time to "run-in", and similarly the system will also take some time to reach normal operating temperatures. It is unwise therefore to make rapid judgements about the performance of the speakers. Your ears too will take some time to adjust to a new sound, so revisiting the system set-up, speaker positioning especially, is best left for a few days.

Always try to begin listening with the speakers where you feel they will perform best, facing straight on while sat in your main listening position. From there adjust toe-in and floor placement to optimise the sound to your preference.

Warranty

Under this warranty Acoustic Energy agrees to repair any defect or, at the company's discretion, replace any faulty component(s) without charge for parts or labour. This warranty does not imply any acceptance by Acoustic Energy or its agents for consequential loss or damage and specifically excludes fair wear and tear, accident, misuse or unauthorised modification.

This warranty is applicable in the United Kingdom, United States of America and Canada only and does not in any way limit the customer's legal rights. If you have reason to claim under the warranty please contact your Acoustic Energy dealer in the first instance.

Claims and enquiries under the warranty for Acoustic Energy products purchased outside the UK, USA or Canada should be addressed to the local importers or distributors.

Please retain all original packaging for future use.

Specifications

Model:	Radiance 1	Radiance 2	Radiance 3	Radiance Centre
Type:	2-way, reflex loaded	2.5-way, reflex loaded	3-way, reflex loaded	2.5-way, reflex loaded
LF Driver:	N/A	130mm pressed alloy	160mm pressed alloy	130mm pressed alloy
LF/MF Driver:	130mm pressed alloy	130mm pressed alloy	130mm pressed alloy	130mm pressed alloy
HF Driver:	25mm Neodymium Ring Radiator with DXT	25mm Neodymium Ring Radiator with DXT	25mm Neodymium Ring Radiator with DXT	25mm Neodymium Ring Radiator with DXT
Cabinet:	Curved, braced 15mm MDF carcass	Curved, braced 15mm MDF carcass	Curved, braced 15mm MDF carcass	Curved, braced 15mm MDF carcass
Frequency Respnse:	50Hz to 45kHz ± 3dB	45Hz to 45kHz ± 3dB	40Hz to 45kHz ± 3dB	55Hz to 45kHz ± 3dB
Power Handling:	150W peak programme	175W peak programme	200W peak programme	150W peak programme
Impedance:	8 Ohms	8 Ohms	8 Ohms	8 Ohms
Sensitivity:	88dB for 1 Watt at 1M	89dB for 1 Watt at 1M	90dB for 1 Watt at 1M	88dB for 1 Watt at 1M
Dimensions (HxWxD):	320 x 185 x 255mm (12.6 x 7.3 x 10.0 inches)	920 x 185 x 255mm (36.0 x 7.3 x 10.0 inches)	920 x 230 x 297mm (36.0 x 9.0 x 11.7 inches)	185 x 450 x 297mm (7.3 x 17.7 x 11.7 inches)
Weight:	8kg (single, unpacked)	16kg (single, unpacked)	18kg (single, unpacked)	8kg (single, unpacked)

Products that diplay the crossed-out wheeled bin logo cannot be disposed of as domestic waste, but must be taken to a facility capable of re-cycling them and appropriately handling any waste by-products. Contact your local authority for details of the nearest such facility.

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