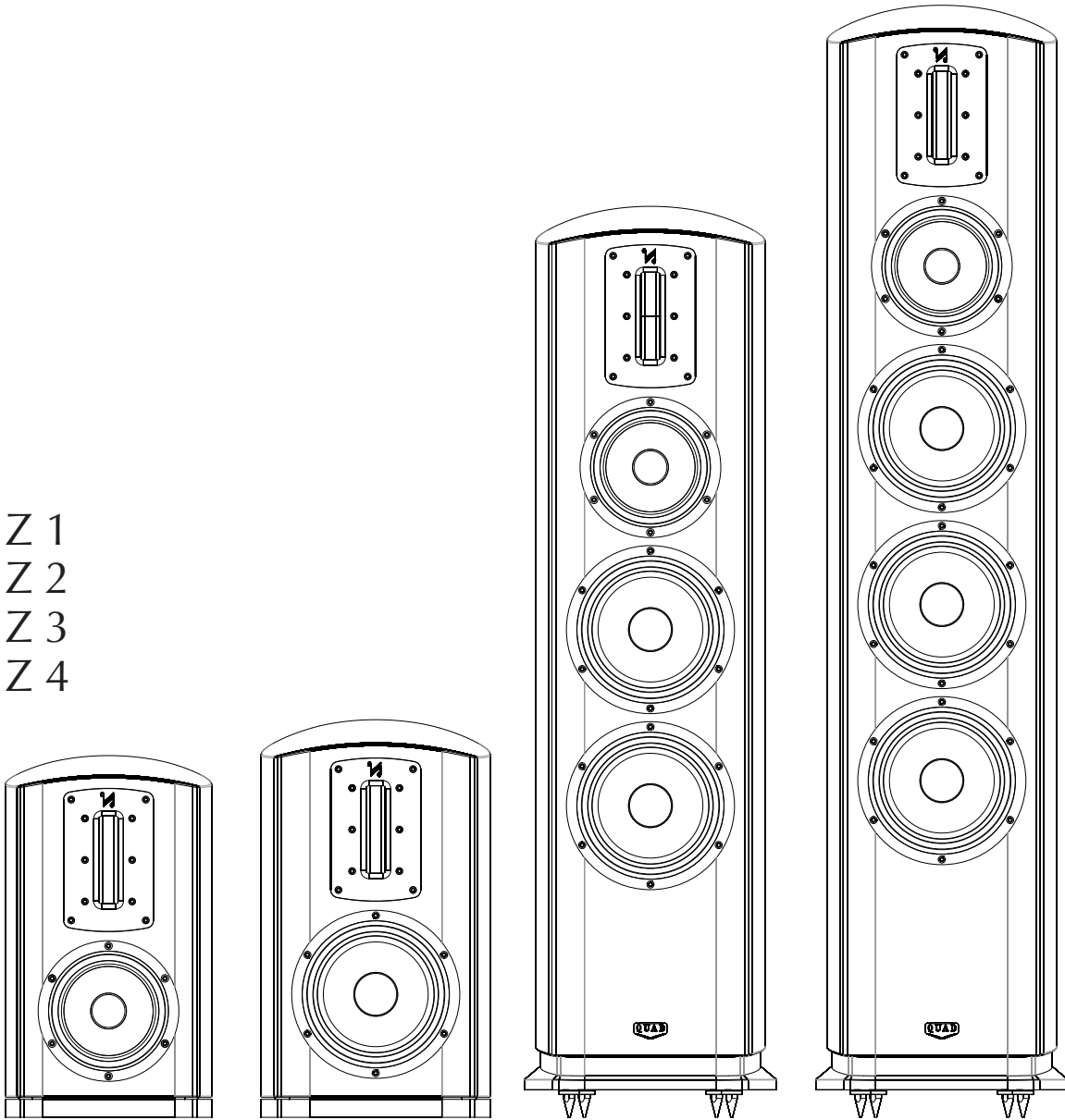


# Z Series

- Z 1
- Z 2
- Z 3
- Z 4

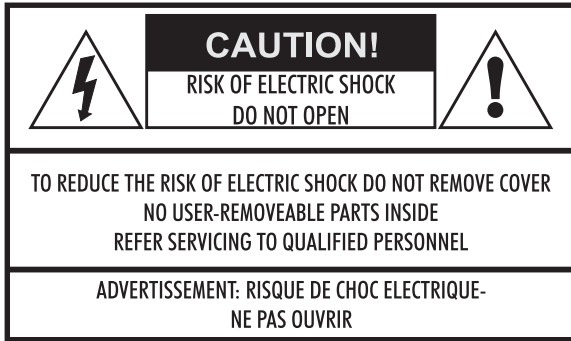


Owner's Manual

**QUAD**

*the closest approach to the original sound*

## Important Safety Caution



This symbol indicates that there are important operating and maintenance instructions in the literature accompanying this unit.



This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.

Read these instructions.

Keep these instructions.

Heed all warnings.

Follow all instructions.

Do not use this apparatus near water.

Clean only with dry cloth.

Do not block any ventilation openings.

Install in accordance with the manufacturer's instructions.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Do not defeat the safety purpose of the polarised or grounding plug. A polarised plug has two blades with one wider than the other. A grounding 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.

Protect the power cord from being walked on or pinched particularly at the plugs, convenience receptacles, and at the point where they exit from the apparatus.

Only use attachments/accessories specified by the manufacturer.



Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart or rack is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Refer all servicing to qualified 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 exposed to rain or moisture, does not operate normally, or has been dropped.

**CAUTION:** These serving 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.

**WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture. The apparatus shall not be exposed to dripping or splashing and that objects filled with liquids, such as vases, shall not be placed on apparatus.

No naked flame sources, such as lighted candles, should be placed on the apparatus.

**CAUTION:** Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this device.

**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 obstruction.



IAG-QUAD

Correct disposal of this products. This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

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## INTRODUCTION

Quad Z Series is the premier moving coil speaker range from Quad – the originators of ‘The Closest Approach To The Original Sound’.

It was way back in the mono days of 1949 that Quad launched its first loudspeaker – the Corner Ribbon. The Corner Ribbon offered something special, a particularly clear and detailed upper midrange/treble performance from a large and delicate ribbon driver.

Plaudits abounded from the press and everyone who heard the Corner Ribbon. The Gramophone observed that the Corner Ribbon’s ‘...smoothness, naturalness, and fidelity of reproduction has yet to be surpassed and, with very few exceptions, even approached.’

And that was in 1949! So, the question is, can Quad engineers replicate this performance today, or even surpass it? The answer, not surprisingly, is YES.

One of the problems with the original Corner Ribbon was that the ribbon unit was very fragile and handled low power only. As we know, Peter Walker, Quad’s originator, moved quickly on to develop the world’s first full range, push-pull Electrostatic speaker.

So, to make a ribbon unit that handled today’s high power amplifiers was no mean task. The Z Series ribbon accomplishes this by utilizing a composite ribbon sandwich substrate that is far more robust than earlier designs and immerses this ribbon in an exceptionally strong magnetic field to yield ultra-high sensitivity.

Unlike conventional dome treble units, where the voice coil ‘motor’ is attached separately to the diaphragm, Z Series ribbon is both the diaphragm and the motor system. The result is a unique combination of delicacy, smoothness and hear-through performance that helps make music sing.

In the Z series floorstanders this advanced ribbon unit is married to an equally high performance midrange driver with a unique double-roll-surround especially designed to control edge breakup and give equal transparency to the all important vocal range.

Both midrange and bass drivers feature Quad’s woven Kevlar cone geometry, now matched by the double-roll-surround for the same smoothness and clarity offered by the ribbon treble unit. The bass section, similar to the original Corner Ribbon, utilizes an acoustic filter bass reflex system that maintains the natural and unforced reproduction right down to the lowest frequencies of a symphony orchestra.

And, of course, putting it all together is a phase-compensated Acoustic Butterworth crossover that is the result not only of Computer Aided Design but also hundreds of hours of critical listening tests using all types and flavours of music.

We don’t need to describe the skilfully hand veneered cabinets as just to look at Z Series will give you a taste of how the furniture quality woodwork will look in your living room. Quad Z Series – beautiful performance and looks combined, for ‘The Closest Approach To The Original Sound’.

**Please read the following notes carefully. They will help you to install your loudspeakers correctly and safely.**

Switch off the amplifier and all sources before making connections to your sound system. When you switch on the system or change sources, set the volume control to minimum and turn up the level gradually.

The position of your volume control is NOT a reliable guide as to the maximum capabilities of your sound system. Playing the system with extreme settings of volume and tone controls may damage the amplifier and loudspeakers.

Do not connect loudspeaker terminals to the mains supply.

Ensure that your loudspeakers are correctly wired and are in phase.

Do not subject your loudspeakers to excessive cold, heat, or sunlight.

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. No naked flame sources - such as candles - must be placed on the product.

Do not place heavy objects on top of loudspeaker cabinets. If you play them with the grilles removed be careful to protect the drive units from children and pets.

Do not use makeshift stands. Always fit a manufacturer's approved stand using the instructions and the fixings provided. Your dealer will advise you.

Do not attempt to dismantle the loudspeaker. There are no user serviceable parts inside and you will invalidate the warranty.

Site your loudspeakers at least 0.5m away from TV sets and magnetic storage media.

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## UNPACKING THE EQUIPMENT

Unpack the loudspeakers carefully. Be especially careful not to damage the loudspeaker cabinets when removing the polythene sleeves. Please retain the packing materials for future transportation. Retain the user manual and the information concerning the date and place of purchase of this equipment for future reference.

**Quad Z3 and Z4 Classic:** These models are floor standing and should be fitted with spikes for better stability and performance.

**Fitting Spikes:** Carefully invert the loudspeaker. Take care to protect the top surface from scratches or damage when the loudspeaker is in the inverted position. Each speaker is supplied with a set of four spike assemblies. Screw a spike into each of the pre-drilled holes in the bottom of each loudspeaker cabinet. Return the loudspeaker to its normal position taking care not to cause damage with the spikes. Adjust the spikes so that the speakers are stable. The top surfaces should be level and the same height above the floor.

When moving speakers, be particularly careful not to let the spikes pierce objects or cables which may be concealed under the carpet. Never drag the loudspeakers. If you cannot lift them easily, get someone to assist you.

**Quad Z1 and Z2 Classic:** These loudspeakers should ideally be stand mounted though they may be placed on a rigid shelf separate from the rest of the system.

## POSITIONING YOUR LOUSPEAKERS

We recommend that the loudspeakers be placed between two and three metres apart and equidistant from the listening position. The tweeters should be roughly at ear level to a seated listener. The loudspeakers should be positioned so that they are angled slightly inward, facing the listener.

The most uncoloured sound will be obtained when the loudspeakers are at least 200mm from the rear walls and 300mm from the side walls. If the loudspeakers are operated closer to the rear walls the bass extension will increase but if they are placed too close to the walls the bass may boom and become indistinct. If the loudspeakers are placed further away from the walls, the inward angle may be increased by up to 40%, although this may restrict the width of the optimum listening position.

As personal taste plays a large role, please experiment with different configurations and play a wide range of music before finalising the position of your loudspeakers.

## CONNECTIONS AND TERMINALS

### Crossover Network



Quad crossover networks separate the treble and bass networks into two distinct sections, each connected by a dedicated pair of terminal posts. This enables the treble and bass components to be separately driven for optimum performance. The upper pair of terminals is connected to the treble network and the lower pair to the bass network.

As supplied, the treble terminal pair is connected to the bass terminal pair by removable metal straps. These should be left in place for standard installations.

### Choosing and Preparing Cable



Specialist audio cable will usually offer better performance than general purpose 'bell' or 'zip' wire. Audio cable is polarised, with two cores of different colours, or often, in the case of twin cable, a coloured tracer or ridge along one wire to indicate polarity.

Choose a cable of suitable diameter - cable that is too thin will limit the dynamics of the sound and may impair the bass response. Split the twin cores to a depth of about 40mm. Carefully strip the insulation from each end, leaving about 10mm of bare wire. If the cable is stranded, lightly twist to gather any loose strands.

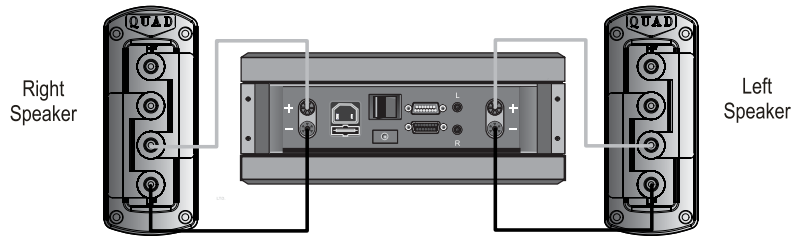
### Connecting Speaker Terminals

Unscrew the terminal. Thread the bared end of each cable through the hole in the bottom of the terminal post. Ensure that there are no loose strands which may touch adjacent terminals. Retighten the terminal securely.

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## CONNECTING THE LOUDSPEAKERS

### Standard Connections

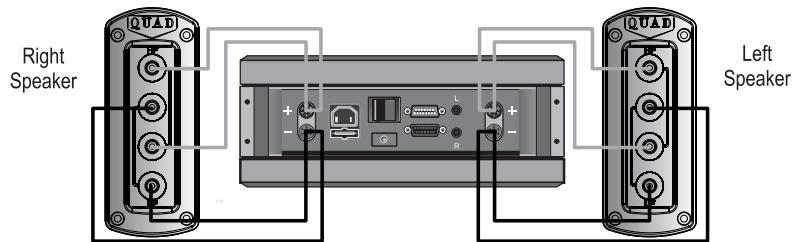


Choose a suitable length of twin core speaker cable for each channel, and prepare the ends as described above.

Connect the positive(+) terminal of the Left loudspeaker to the corresponding positive(+) amplifier terminal. Connect the negative(-) terminals similarly. Repeat this procedure for the Right Channel. Note that the positive(+) terminals are located on the right.

## CONNECTING THE LOUDSPEAKERS

### Bi-Wiring



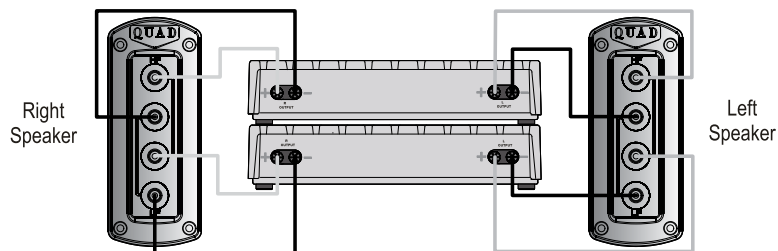
Most of the audio signal going to the speakers drives the bass units. Where one cable feeds both bass and treble units, this heavy bass current can modulate the high frequencies. Using separate cables for treble and bass units reduces intermodulation effects and improves headroom and clarity. This technique of wiring is known as Bi-Wiring. To bi-wire, you will need to install two lengths of twin core cable between the amplifier and each loudspeaker.

Unscrew each terminal a few turns and remove the metal straps. The upper pair of terminals on the crossover panel feeds the treble units and the lower terminals feed the bass unit. Connect the cables between the amplifier and the loudspeakers as indicated above and retighten all the terminals securely.

Where feasible, we strongly advocate bi-wiring.

### Bi-Amplifying (Bi-Amping)

By connecting each loudspeaker drive unit to its own dedicated amplifier the advantages of Bi-Wiring can be extended. If you own two identical stereo power amplifiers, you may wish to try bi-amping your QUAD loudspeakers. For further details please consult your dealer.



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## GETTING THE BEST FROM YOUR LOUDSPEAKERS

### Phase

If the sound lacks definition or the bass is indistinct, this could be because you have inadvertently misconnected your loudspeakers. Please check the wiring to both loudspeakers carefully, especially if they are bi-wired.

### Ancillary Equipment

QUAD loudspeakers are compatible with the great majority of audio-visual and high fidelity equipment. Your amplifier should have ample reserves of power - a low powered amplifier can run out of steam quite easily and the resulting distortion is unpleasant to listen to and could damage your speakers. A larger amplifier will usually sound better and enhance the reliability and performance of your loudspeakers.

### Running In

Loudspeakers are electro-mechanical and, like all mechanical systems, they need a 'running in' period. For the first 50 hours or so exercise care and play your system at reasonable volume levels. After running in, you will notice a significant sonic improvement.

### Care and Maintenance

Little maintenance is required. The cabinets can be occasionally wiped with a damp (not wet) cloth. Spray polish, if used, should be applied sparingly - spray the polish onto a cloth and then apply it to the speaker. NEVER spray at the grille cloth or the speaker drive units. To clean the grilles, remove them first before gently brushing with a soft brush. Never use solvent cleaners, minor stains are best removed with soap and lukewarm water. Avoid touching the drive units as they can easily be damaged.

## SERVICE & INFORMATION

Product service enquiries should instantly be referred to the supplying dealer. If you need to return your loudspeakers for servicing, please return them as a pair even if only one unit appears to be faulty. For safety, we recommend that they be shipped in their original packing.

In cases of difficulty or for other product enquiries, please contact the appointed QUAD distributor for your country. Service Centre in the UK can be found below.

### Authorised QUAD Service Centre in the U.K.

IAG House,  
13/14 Glebe Road,  
Huntingdon, Cambridgeshire,  
PE29 7DL  
UK  
Tel: +44 (0)1480 452561  
Fax: +44 (0)1480 413403

A worldwide distributor list is available on the QUAD website: [www.quad-hifi.co.uk](http://www.quad-hifi.co.uk)

## SPECIFICATIONS

<b>Model</b>	<b>Z1</b>	<b>Z2</b>
General description	bookshelf	bookshelf
Enclosure type	bass reflex	bass reflex
Transducer complement	2-way	2-way
Bass driver	150mm black glass fibre cone	175mm black glass fibre cone
Midrange driver		
Treble driver	90x12mm true ribbon	90x12mm true ribbon
AV shield	No	No
Sensitivity (1W @ 1m)	86db	84db
Recommended amplifier power	20-100w	30-120w
Peak power handling	100w	120w
Peak SPL	102dB	102dB
Nominal impedance	8Ω	8Ω
Minimum impedance	4.6Ω	4.6Ω
Frequency response (+/-3dB)	56Hz - 20kHz	50Hz - 20kHz
Bass extension (-6dB)	48Hz	45Hz
Crossover frequency	3.4KHz	3.4KHz
Cabinet Volume (in litres)	10L	15L
Dimensions (mm)		
Height (on plinth & spikes)	383mm	421mm
Width	219mm	243mm
Depth	283mm	329mm
Carton size	580x360x490mm	630x410x530mm
Net weight	8.5 kg/pcs	10.5 kg/pcs
Finish	Black Piano / Rosewood Piano/White Piano	Black Piano / Rosewood Piano/White Piano
Standard accessories	user manual, certificate	user manual, certificate

<b>Model</b>	<b>Z3</b>	<b>Z4</b>
General description	Floor-standing	Floor-standing
Enclosure type	bass reflex	bass reflex
Transducer complement	3-way	3-way
Bass driver	2 x 175mm black glass fibre cone	3 x 175mm black glass fibre cone
Midrange driver	150mm black glass fibre cone	150mm black glass fibre cone
Treble driver	90x12mm true ribbon	90x12mm true ribbon
AV shield	No	No
Sensitivity (1W @ 1m)	89db	90db
Recommended amplifier power	40-120w	40-120w
Peak power handling	120w	120w
Peak SPL	110dB	115dB
Nominal impedance	6Ω	4Ω
Minimum impedance	3.8Ω	3.6Ω
Frequency response (+/-3dB)	50Hz - 20kHz	47Hz - 20kHz
Bass extension (-6dB)	45Hz	40Hz
Crossover frequency	450Hz 3.6KHz	300Hz 3.5KHz
Cabinet Volume (in litres)	34L	43L
Dimensions (mm)		
Height (on plinth & spikes)	965mm	1175mm
Width	267mm	267mm
Depth	340mm	340mm
Carton size	1060x460x395mm	1270x460x395mm
Net weight	21.5 kg/pcs	26.5 kg/pcs
Finish	Black Piano / Rosewood Piano/White Piano	Black Piano / Rosewood Piano/White Piano
Standard accessories	user manual, certificate,spike seat	user manual, certificate,spike seat

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QUAD

IAG House, 13/14 Glebe Road, Huntingdon, Cambridgeshire, PE29 7DL, UK  
Tel: +44(0)1480 52561 Fax: +44(0)1480 413403 <http://www.quad-hifi.co.uk>  
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