

Elite series



Stereo Power Amplifier
Mono Power Amplifier

Owner's Manual

QUAD

the closest approach to the original sound

IMPORTANT SAFETY INFORMATION

	CAUTION! RISK OF ELECTRIC SHOCK DO NOT OPEN	
TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT REMOVE COVER (OR BACK) NO USER-REMOVABLE PARTS INSIDE REFER SERVICING TO QUALIFIED PERSONNEL		
ADVERTISSEMENT: RISQUE DE CHOC ELECTRIQUE- NE PAS OUVRI		



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 polarized or grounding type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wider blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the

ELECTRICAL INFORMATION

MAINS SUPPLY AND SAFETY

Mains Supply: The mains operating voltage of all QUAD Elite series units is shown on the rear panel. If this voltage does not match the mains voltage in your area, consult your QUAD dealer about converting the unit.

The mains supply fuse on the rear panel is accessible when the IEC mains plug has been removed. In the rare event that it has broken, check for any obvious cause before replacing the fuse with one of the correct rating and type. The fuse values are:

QUAD Elite Stereo Amplifier

220 - 230V (UK, Korea, etc.) T 3.15AL 20mm Slow Blow

100 - 120V (USA, Japan, etc.) T 6.3AL 20mm Slow Blow

QUAD Elite Mono Amplifier

220 - 230V (UK, Korea, etc.) T 3.15AL 20mm Slow Blow

100 - 120V (USA, Japan, etc.) T 6.3AL 20mm Slow Blow

WARNING: The mains plug/appliance coupler is used as disconnect device, the disconnect device shall remain readily operable.

obsolete outlet.

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



Use only attachments/accessories specified by the manufacturer.

Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart 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 service 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 spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

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 should be placed on the product.

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

This equipment is a Class II or double insulated electrical appliance. It has been designed in such a way that it does not require a safety connection to electrical earth.

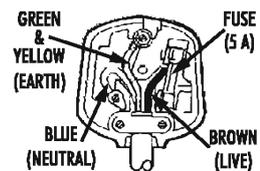
IMPORTANT NOTICE TO UK USERS

The appliance cord is terminated with a UK approved mains plug fitted with a 5A fuse. If the fuse needs to be replaced, an ASTA or BSI approved BS1362 fuse rated at 5A must be used. If you need to change the mains plug, remove the fuse and dispose of this plug safely immediately after cutting it from the cord.

Connecting a Mains Plug

The wires in the mains lead are coloured in accordance with the code: Blue: NEUTRAL Brown: LIVE: Green and Yellow: Earth. As these colours may not correspond to the coloured markings identifying the terminals in your plug, proceed as follows:

The BLUE wire must be connected to the terminal marked with the letter N or coloured BLUE or BLACK. The BROWN wire must be connected to the terminal marked with the letter L or coloured BROWN or RED. The GREEN & YELLOW wire must be connected to the terminal marked with the letter E or coloured GREEN or GREEN & YELLOW or marked with the Earth Symbol ⊕



QUAD

ELITE

USER GUIDE

Elite Mono Power Amplifier

Elite Stereo Power Amplifier

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INTRODUCTION

The Quad Elite power amplifiers offer exceptional accuracy combined with high power delivery. The amplifiers can be used either stand-alone or as an integral component of the Elite series, a matched range of hi-fidelity equipment which can be connected using the Quadlink system.

Please read this manual fully before you begin to install and use the equipment.

Product Registration and Warranty

QUAD equipment is guaranteed against any defect in material and workmanship for a period of one year from the date of purchase. Proof of purchase is required for Warranty claims.

Please complete and return the enclosed Warranty Registration form. Within the warranty period QUAD will undertake replacement of defective parts free of charge provided that the failure was not caused by misuse, accident or negligence. Your statutory rights within the territory in which you purchased the equipment are not affected by this warranty.

QUAD carries out regular reviews and reserves the right to adjust the specifications and performance from time to time.

UNPACKING THE EQUIPMENT

The Elite Mono Amplifier carton contains:

- The Elite Mono Power-Amplifier
- One IEC mains cable with a plug suitable for your area
- One Ampbus cable
- Elite Amplifier Instruction Manual
- Warranty Registration Form.

The Elite Stereo Amplifier carton contains:

- The Elite Stereo Power-Amplifier
- One IEC mains cable with a plug suitable for your area
- One Ampbus cable
- Elite Amplifier Instruction Manual
- Warranty Registration Form.

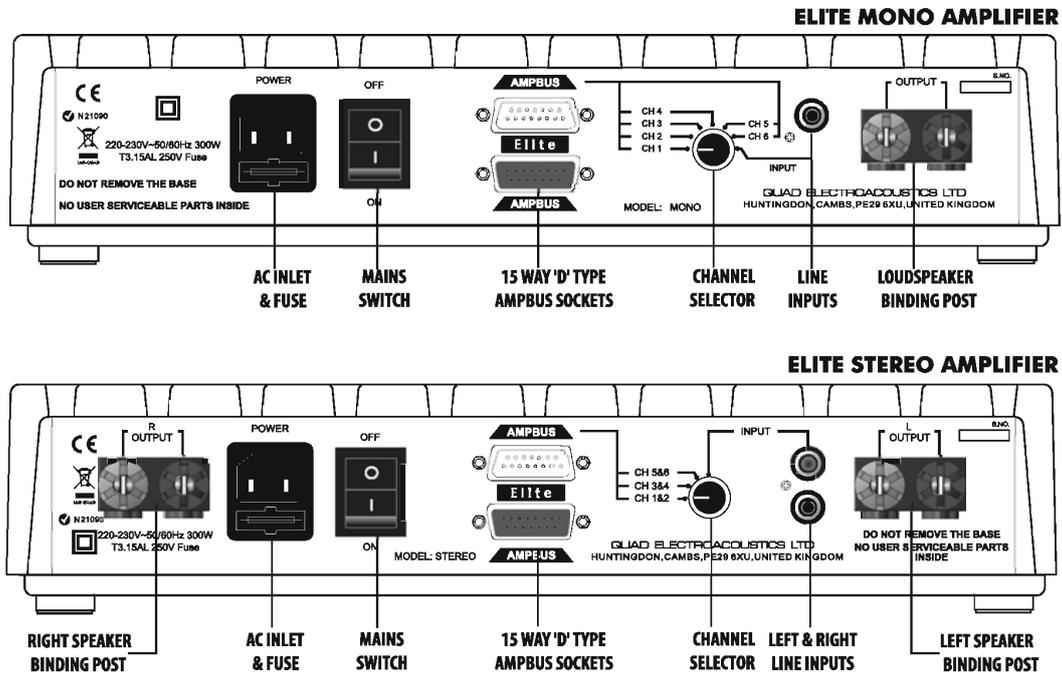
Consult the dealer from whom you purchased the equipment if any item is not present.

Carefully unpack all the units and accessories. Take care not to damage the surface finish when undoing the protective polythene sleeve. Retain the packing materials for future use.

Retain the user manual and information concerning the date and place of purchase of your equipment for future reference.

If you transfer any unit to a third party please pass on this instruction manual along with the equipment.

INSTALLATION



Mains Connections

Before connecting your QUAD equipment to the AC mains supply check that the voltage marked on the back matches the voltage of your supply.

Mains On/Off Switch

The Mains On/Off switch is on the rear panel. When the amplifier is connected to a Quad Elite system with the special AMPBUS cable this switch should normally be left switched on as the amplifier will be remotely switched by other source units. Where the amplifier/s are not part of a Quad Elite system the Mains On/Off switch should be switched off when the amplifier is not in use.

Placement

When installed in a domestic system at the base of an Elite Series equipment stack the Elite Stereo or even a pair of Elite Mono amplifiers will be perfectly satisfactory provided there is sufficient ventilation.

If you are likely to use the amplifier/s for extended periods at extremely high volume levels, it may be advisable to install the units side by side in free air. To do this you will need 1 metre long AMPBUS cables which are available from your dealer or Quad. The method of connection remains unaltered. Please ask your dealer's advice.

Although the drawings show bi-amplified Elite mono amplifiers stacked vertically, this is purely for illustration purposes. If you are using four Elite mono amplifiers they should be in a separate stack (or even in two pairs) beside the other source units.

Cables

When estimating the length of loudspeaker cable, provide sufficient to enable access and tidy securing. Some cable, is quite heavy and you should be careful to place your cables so that they do not cause undue strain on the binding posts of the amplifier or loudspeaker.

If you are using your Elite amplifier with non-Quad Elite source units, ensure the signal input is of high quality and adequately screened.

Signal Input Connections

Connecting to a Quad Elite System

When the amplifier is used as part of a Quad Elite system, you should use the AMPBUS lead provided to connect to the output of the Elite preamplifier.

Quad Elite units are connected via multiway cables. The ends are terminated with a male and female 15 way D type connector. When used to link control units they are referred to as QUADLINK and when connecting amplifiers they are referred to as AMPBUS cables.

AMPBUS signal is differential. This offers performance advantages over the usual unbalanced mode.

Channel Selector

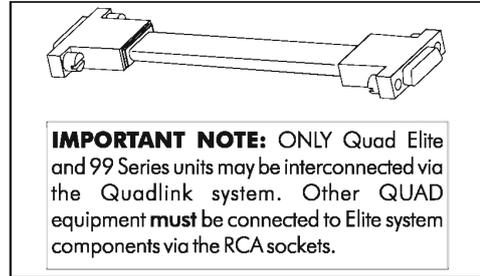
The Quad AMPBUS system carries channels for normal stereo signals as well as the centre, subwoofer and rear channels required for AV applications. The rotary switch on the back of the amplifier should be used to select the appropriate channel. These channels are:

Quad Elite Mono

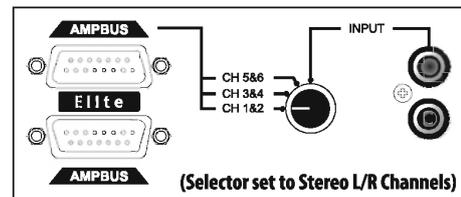
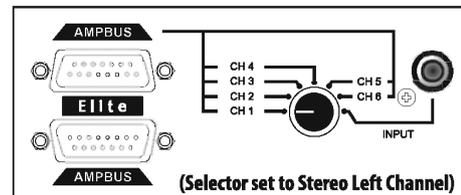
- CH1 Stereo Left
- CH2 Stereo Right
- CH3 Rear Left
- CH4 Rear Right
- CH5 Centre
- CH6 Subwoofer

Quad Elite Stereo

- CH1 & 2 Stereo Left: Stereo Right
- CH3 & 4 Surround Channels Left & Right
- CH5 & 6 Centre (Left LS:) Subwoofer (Right LS)



IMPORTANT NOTE: ONLY Quad Elite and 99 Series units may be interconnected via the Quadlink system. Other QUAD equipment **must** be connected to Elite system components via the RCA sockets.



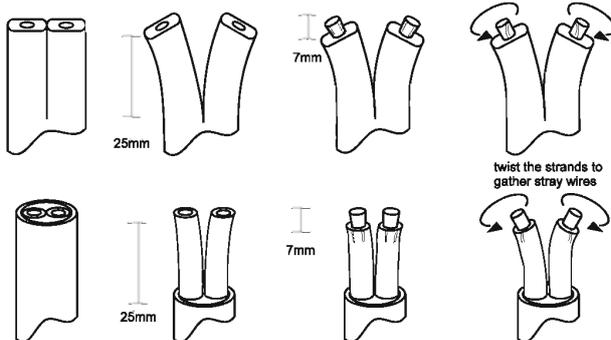
Connecting to a non Quad Elite System (Stand Alone Operation)

When the amplifier is used stand alone you will need to connect the line output of the source preamplifier to the Line Input of the Quad Elite power amplifier/s. Refer to Page 8.

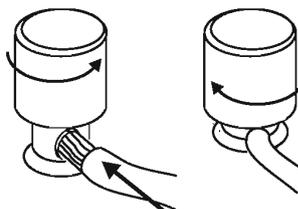
Loudspeaker Connections

Loudspeaker cables should be carefully prepared. The illustrations shown use round and flat speaker cable. When stripping the insulation, be careful not to cut into the wire. Collect together all the strands of wire as stray wires may cause shorting which could result in damage or cause a fire.

Make sure that all channels are connected in phase. The positive (red) output terminal of each channel should be connected to the positive (red) terminal of the speaker. Special care should be taken when bi-wiring as phase becomes critical.



Partially unscrew the terminal to expose the cross hole at the terminal base. Push the bare end of the cable into the hole. Ensure that the polarity is correct and there are no loose strands which could touch adjacent terminals. Tighten securely.

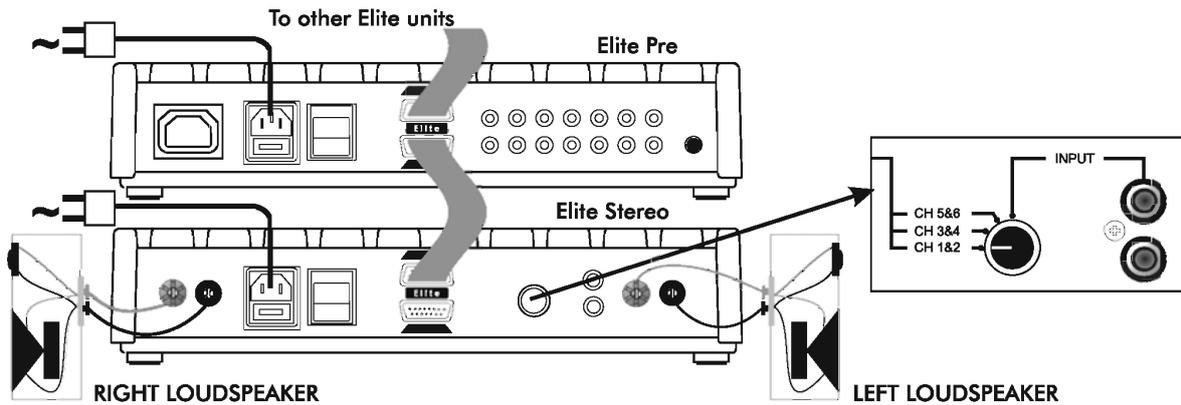


Basic System Connections using AMPBUS

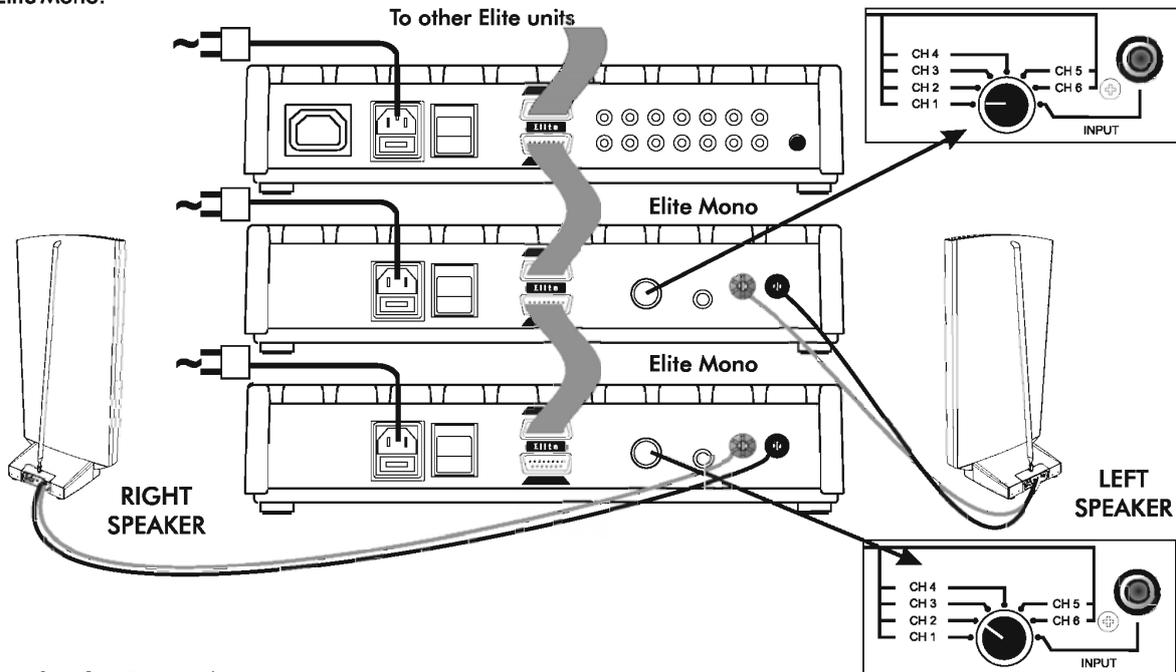
Elite Stereo: Plug an AMPBUS lead into the upper socket of the Elite Stereo. The other end should be plugged into the AMPBUS socket of the Elite preamplifier which will normally be sited above the unit.

Elite Mono: Plug an AMPBUS lead into the upper socket of the upper Elite Mono. The other end should be plugged into the AMPBUS socket of the Elite preamplifier which will normally be sited above the unit. The other AMPBUS lead is connected between the lower AMPBUS socket of the upper Elite Mono and the upper socket of the lower Elite Mono so that you have a daisy chain. By convention the upper amplifier is the Left Channel, the lower amplifier is the Right Channel.

Elite Stereo:



Elite Mono:



Loudspeaker Connections

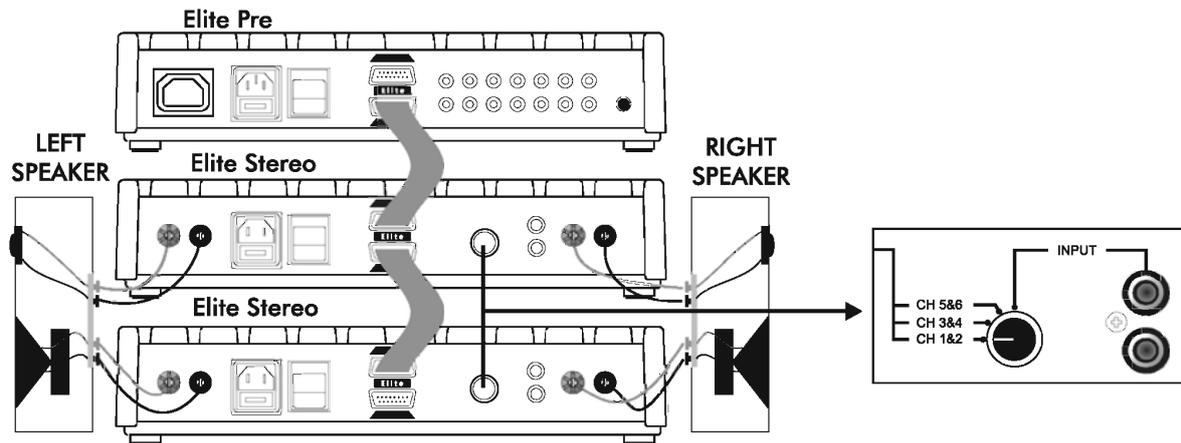
Connect the Left speaker to the Left output of the amplifier. Ensure that the Red (+) terminal of the amplifier connects to the Red (+) terminal of the speaker and that the Black (-) terminal of the amplifier connects to the Black (-) terminal of the speaker. Connect the Right channel similarly.

Bi-Wiring: If your loudspeakers have a bi-wiring capability you should certainly bi-wire them. Please refer to the Loudspeaker user manual for the relevant information and advice.

Bi-Amplification using AMPBUS

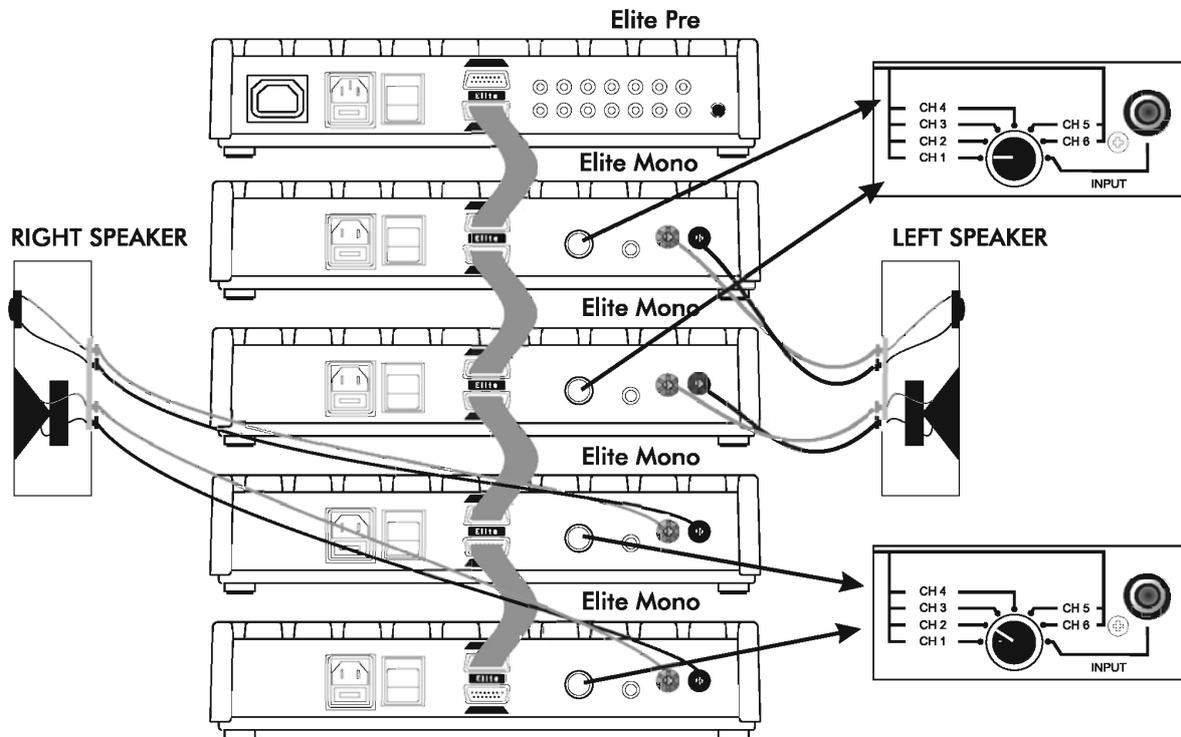
Bi-amplification is a process whereby the bass and treble units are separately amplified. If your loudspeaker is capable of bi-wiring it can also be bi-amplified. Please refer to the Loudspeaker user manual for the relevant information and advice.

Elite Stereo:



Elite Mono

When bi-amplifying with four Elite Mono amplifiers it is essential to make sure that the channel switches are connected correctly. The Left and Right amplifiers should form pairs.



Phase: Make sure that both channels are connected in phase. The positive (+) output terminal of each channel should be connected to the positive (+) terminal of the speaker and the negative (-) output terminal of each channel should be connected to the negative (-) terminal of the speaker. Special care should be taken when bi-wiring and bi-amplifying as phase becomes critical.

Using Elite Amplifiers with non-Elite series Source Units

Input Connections to a non Quad Elite System (Stand Alone Operation)

When the amplifier is used stand alone you will need to connect the line output of the source preamplifier to the Line Input of the Quad Elite power amplifier/s.

The channel switch must be set to "INPUT" as shown in the drawings opposite.

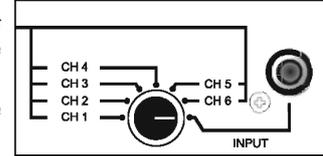
In this connection the Ampbus sockets are not used.

Note: The Inputs of the Quad Stereo amplifier are colour coded but not marked.

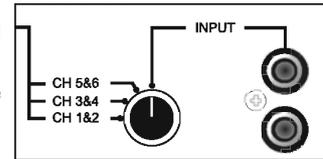
The Upper socket connects to the Left Channel amplifier and the Lower Socket is the Right Channel.

Some typical layouts are shown below.

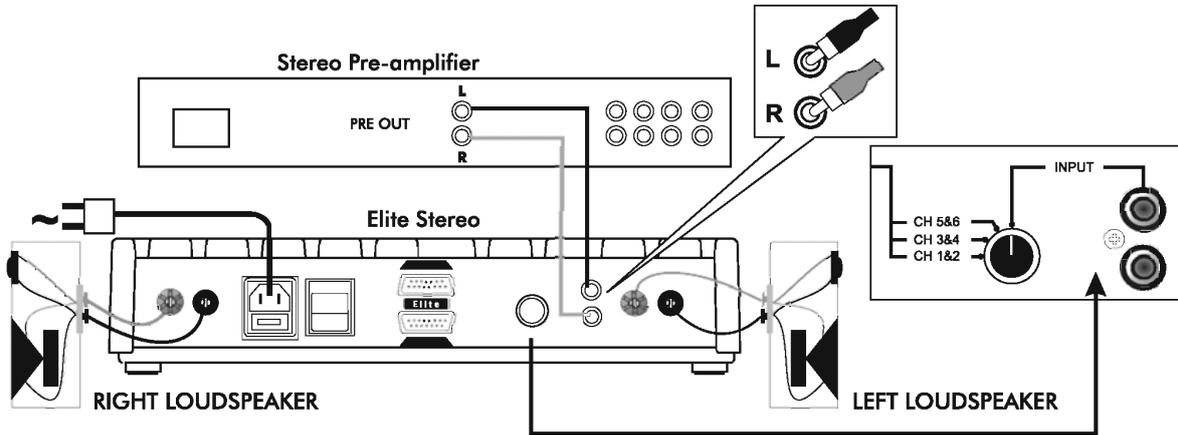
Elite Mono



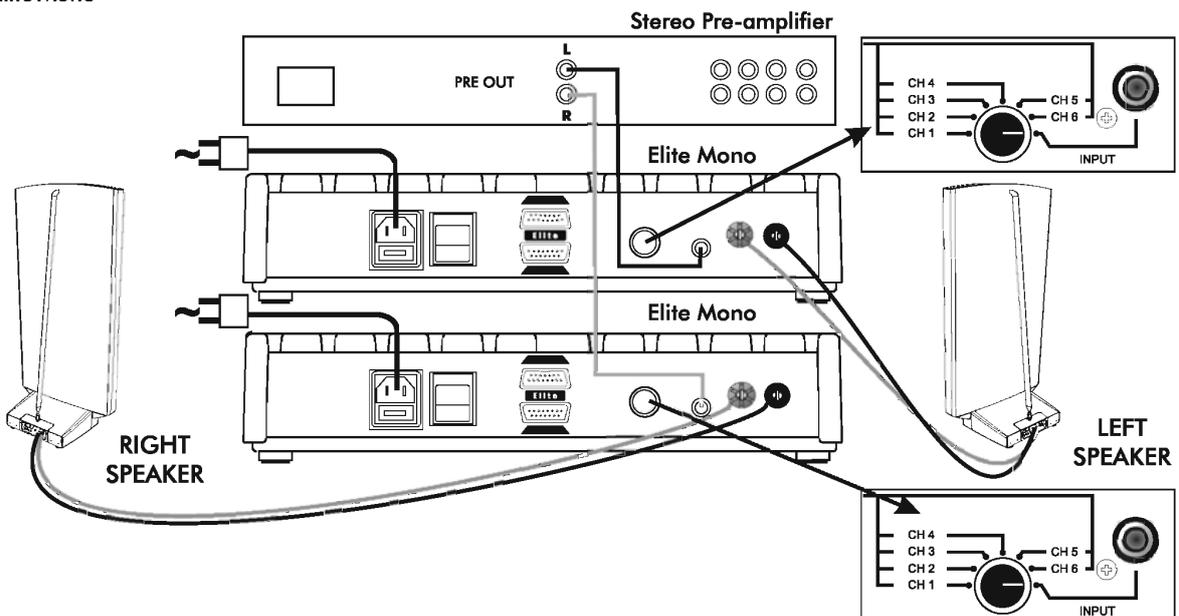
Elite Stereo



Elite Stereo



Elite Mono



OPERATION



Final Connections

The power supply input is via an IEC mains connector and an appropriate mains lead is supplied. Connect the mains lead/s to the amplifier/s and then to the wall socket ensuring that the mains switch on all amplifiers and wall sockets are switched off.

After checking that all leads are correctly installed and the selector switch is correctly set on each amplifier, you can switch on the mains supply to the preamplifier first and then to the power amplifier/s.

Front Panel Indications - Elite System

When the Quad Elite preamplifier is in STANDBY mode, the front panel indicator of the amplifier (also in Standby) will light a steady red.

When you activate the system the logo will glow white and stay white during normal operation

If the amplifier detects a fault such as a short circuit on the speaker cables, or if the amplifier overheats, the amplifier will power down and the indicator will flash red.

After 30 seconds the amplifier will 'try again'. If all is well the amplifier will go into standby and the indicator light will glow a steady red. You may now bring the amplifier out of STANDBY.

If there is a persistent fault, when the amplifier 'tries again' the light will still flash red. Should this happen, switch off the unit at the mains and wait 30 minutes. Carefully check all the connections before switching on again. The amplifier should now go into STANDBY, and the light will glow a steady red.

If, however, the red light still flashes there is an internal fault and you should return the unit to your dealer for his attention.

Front Panel Indications - non-Elite System

When the amplifier is switched on, the front panel indicator will briefly light red and then the logo glow steady white. It will stay steady white during normal operation.

If there is a fault the amplifier will power down and flash red. After 30 seconds the amplifier will 'try again'. If all is well the light will glow white indicating normal operation.

If there the light still flashes red, switch off the unit at the mains and wait 30 minutes. Carefully check all the connections before switching on. The light should now indicate white indicating normal operation.

If, however, the red light still flashes there is an internal fault and you should return the unit to your dealer for his attention.

Running- In

The performance of power amplifiers tends to improve after a after a period of use and then stabilise. This We recommend that the system be run with a music signal for several hours when it is first installed. Although the changes can be quite subtle in nature, we find that after a few days the sound quality becomes smoother and more natural.

After Use

Elite System: Put the system into standby with the Preamplifier or system handset. This will send all connected amplifiers into standby.

Non-Elite System: Turn the volume control on the preamplifier to minimum. Switch the power amplifiers off using the switches on the rear panel BEFORE you switch the preamplifier off.

In a non-Elite system the power amplifier should always be the last unit in the chain to be switched on and the first to be switched off.



TROUBLESHOOTING

If you suspect that your power amplifier is not operating properly, here are a few simple checks you should carry out before returning the unit to your dealer.

Before making any checks on system wiring, in particular AMPBUS cables, please ensure the amplifier is switched off and the volume control set at minimum. If you are in any doubt as to the satisfactory operation of your Quad Elite Series hi-fi equipment, please consult your appointed QUAD dealer

SYMPTOM	POSSIBLE CAUSE
No front panel indication when power is applied.	Mains outlet faulty or not switched on Mains plug fuse or mains cable faulty The IEC plug has not been pushed in firmly enough The rear panel fuse has blown
The Elite front panel indicator glows white but there is no sound from either speaker	You have selected the wrong input channel on the amplifier. Loudspeaker cables misconnected or faulty No source connected to your preamplifier or the source has finished playing. AMPBUS connections have been poorly made. The cable between the amplifier phono input and the preamplifier is faulty (non Quad Elite systems)
You are getting the same channel on both speakers.	You have selected the wrong input channel on one Elite mono amplifier.
The channels are reversed	You have selected the wrong input channel on the amplifier. Loudspeaker cables are misconnected. RCA input cables misconnected (non Elite systems)
There is a large hum or unpleasant noise from the loudspeakers	Signal cable to amplifier faulty (non Elite systems) Faulty source equipment
After playing for a while, the amplifier switches off	Faulty loudspeakers or loudspeaker cable Loudspeaker impedance too low and/or Amplifier playing too loudly and overheating
Every time the amplifier is turned on: The fuse blows: The light flashes red:	Refer the matter to your dealer.

FURTHER INFORMATION

Quad Electrostatic Loudspeakers

Elite power amplifiers are fully compatible with the all models from the Quad ESL-63, onwards. They should not be used with the original model (ESL 57) which could be damaged by signal peaks unless a protection circuit is fitted inside each loudspeaker – please contact Quad Electroacoustics for details.

Checking the phase of your loudspeakers

If there is any doubt about the way the loudspeakers are connected, their phasing can easily be checked by playing a mono source, when the sound should appear to emanate from a point midway between the two loudspeakers. If this is indefinite, then the connections to one of the loudspeakers should be reversed. When correctly connected, the loudspeakers will give a definite centre sound source with more full bodied tenor and bass registers.

Headphone Listening

Where headphones are used, these will normally be used instead of loudspeakers and there are a number of suitable switch units available designed to enable the loudspeakers to be switched off when the headphones are plugged in. Most of these incorporate a simple attenuator circuit to permit operation at normal settings of the preamplifier volume control. Electrostatic or other types of headphones requiring a high level input should be operated in accordance with the manufacturer's instructions.

CARE AND CLEANING

The surface of the equipment may be cleaned with a damp cloth provided that the power has been switched off first. Solvent based cleaning materials should not be used as they may damage the paint finish.

SERVICE INFORMATION

Product service enquiries should, in the first instance, be referred to the supplying dealer. If you need to return your equipment for servicing we recommend that it is shipped in its original packing.

In cases of difficulty or for other product enquiries please contact the appointed QUAD distributor for your country. Principal Service Centre addresses and contact numbers can be found below.

For information on authorised service centres worldwide contact QUAD Electroacoustics Ltd. A worldwide distributor list is available on the QUAD website: www.quad-hifi.co.uk

International Service Centres

UK: International Audio Group Service Centre, Unit 4, St Margaret's Way, Stukeley Meadows Industrial Estate Huntingdon, Cambs, PE29 6EB'
Tel: +44 (0)1480 447700 Fax: +44 (0)1480 431767

SPECIFICATIONS - ELITE STEREO POWER AMPLIFIER

Output Specifications

Output Power	80W RMS x 2, 8 Ohms
Frequency Response	0.2Hz – 75kHz (+/-3dB)
Total Harmonic Distortion	<0.005% at 70W, 1kHz <0.05% at 70W, 20kHz
Signal to Noise Ratio	>105 dB (20Hz – 20kHz) ref 100w

Input Specifications

RCA Phono Input

Input Sensitivity (RCA)	775mV(for max output)
Input Impedance (RCA)	33K Ω

AMPBUS Input

AMPBUS Input Sensitivity	2.0V(for max output)
AMPBUS Input Impedance	10K Ω

Main Power On/Off Switch

Yes

Dimensions (H x W x D)

70 x 321 x 310 mm

Weight

6.25 kg

Finish

Black

SPECIFICATIONS - ELITE MONO POWER AMPLIFIER

Output Specifications

Output Power	150W RMS, 8 Ohms
Frequency Response	0.2Hz – 80kHz (+/-3dB)
Total Harmonic Distortion	<0.005% at 100W, 1kHz <0.05% at 100W, 20kHz
Signal to Noise Ratio	>105 dB (20Hz – 20kHz) ref 100w

Input Specifications

RCA Phono Input

Input Sensitivity (RCA)	775mV(for max output)
Input Impedance (RCA)	33K Ω

AMPBUS Input

AMPBUS Input Sensitivity	2.0V(for max output)
AMPBUS Input Impedance	10K Ω

Main Power On/Off Switch

Yes

Dimensions (H x W x D)

70 x 321 x 310 mm

Weight

6.5 kg

Finish

Black



IAG-QUAD

Correct Disposal of this product. 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.

QUAD

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