

# QUAD

QUAD 303 User Manual





Scan the QR code using a smart-phone device, for product warranty registration online.

# **Important Safety Information**





This lightning flash with an arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of non-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

Warning: To reduce the risk of electric shock, do not remove cover (or back) as there are no user-serviceable parts inside. Refer servicing to qualified personnel. The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions in the literature accompanying the appliance.

Read these instructions. Keep these instructions. Heed all warnings.

Follow all instructions.

Do not use this apparatus near water. Clean only with a dry cloth.

Do not block any ventilation openings. Install under 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-type 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 the replacement of the obsolete outlet.

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

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 spilt or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

CAUTION: These servicing 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.

Do not install this equipment in a confined or built-in space such as a bookcase or similar unit, and keep well-ventilated in an open space. The ventilation should not be impeded by covering the ventilation openings with items such as newspaper, tablecloths, curtains etc.

WARNING: Only use attachments/accessories specified or provided by the manufacturer (such as the exclusive supply adapter, battery etc.).

WARNING: Please refer to the information on the exterior panel of the enclosure for electrical and safety information before installing or operating the apparatus.

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 the apparatus.

WARNING: For the terminals marked with the symbol of " 1/2" may be of sufficient magnitude to constitute a risk of electric shock. The external wiring connected to the terminals requires installation by an instructed person or the use of ready-made leads or cords.



Ground protection terminal. This product should be connected to a power outlet with ground protection.

Denmark: Apparatets stikprop skal tilsluttes en stikkontakt med jord, som giver forbindelse til stikproppens jord.

Finland: Laite on liitettävä suojakoskettimilla varustettuun pistorasiaan.

Norway: Apparatet må tilkoples jordet stikkontakt.

Sweden: Apparaten skall anslutas till jordat uttag.

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

WARNING: Attention should be drawn to environmental aspects of battery disposal.

WARNING: Use of the apparatus in tropical climates.

THE FUSE VALUES ARE:

220 – 240V (UK, China, etc.) T 2.0AL 250V Slow Blow 100 – 120V (USA, Japan, etc.) T 4.0AL 250V Slow Blow



# **Contents**

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# **Getting Started**

03

Welcome to the QUAD 303.

#### **Features**

- 'QUAD Triples' output stage Class AB power amplifie
- Stereo/Bridge mode selectio
   In Stereo mode one QUAD 303 can drive a pair of speakers with 2 x 70W maximum output.
   In Bridge mode (mono operation) one QUAD 303 will drive one speaker with 1 x 170W maximum output.

Refer to the Stereo and Bridge mode diagrams for the correct connections.

#### **Inputs**

- One pair of unbalanced analogue (AUX) input
- One pair of balanced analogue (XLR) input
- One 12V trigger i

#### **Outputs**

- One pair stereo speaker outpu
- One 12V trigger lin

#### **Unpacking the Equipment**

The carton should contain:

- The QUAD 30
- One IEC power cable suitable for your regio
- · One user manua

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

Carefully unpack the unit 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 the unit to a third party, please pass on this instruction manual along with the equipment.

#### **Placement**

Provide plenty of ventilation around the unit to avoid a build-up of heat.

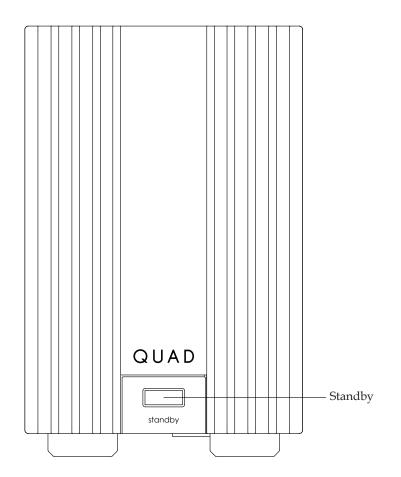
#### **Mains Supply**

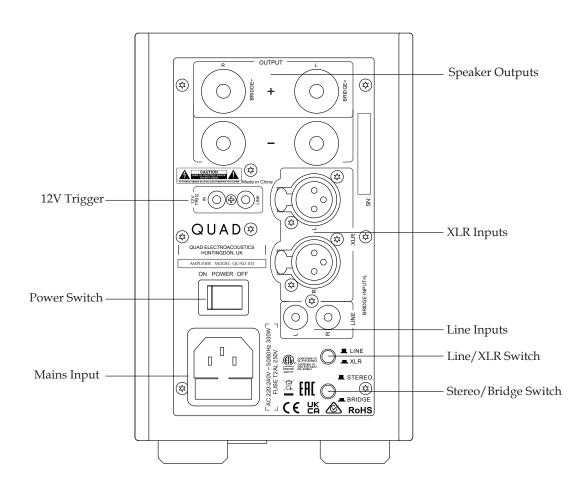
Before you connect the QUAD 303 to the AC mains power, ensure your AC mains voltage corresponds to the rating on the rear panel of the product. If in doubt, consult your dealer. If you move to an area that has a different mains voltage, seek advice from a QUAD appointed dealer or a competent service technician.



## **Connections and Functions**









# Warranty

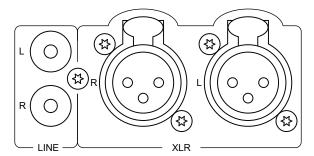
### **Connections**

#### **Balanced Input (XLR)**

Balanced connections can provide greater dynamic range and lower noise. We recommend that you connect your QUAD 33 (or other preamplifier) to your QUAD 303 balanced inputs by one pair of balanced XLR cables. Ensure that the Line/XLR selector button is pressed 'in' to activate the XLR input mode.

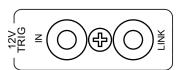
#### **Unbalanced Input (LINE)**

You can connect your QUAD 33 (or other analogue sources) to the QUAD 303 LINE IN inputs. by way of a RCA to RCA cable. Ensure that the Line/XLR selector button is 'out' to activate the LINE mode.



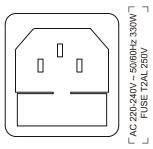
#### **12V Trigger Connection**

The QUAD 303 has one 12V Trigger input and one trigger link. Connect the trigger OUT of your QUAD 33 (or other appropriate device) to the trigger IN of the QUAD 303. You can also connect the 12V Trigger 'LINK' to a secondary device, such as a second QUAD 303, as illustrated in the 'System Connection' section of this manual.



#### **Mains Input**

Before connecting the AC power cord to the QUAD 303, please make sure the Power Switch is in the OFF position. Switch it to the ON position after connecting the unit to the AC mains.



# Specifications

# **System Operation**



#### **Switching On and Off**

The QUAD 303 should be switched on after the preamplifier in your system. When switching off your system, turn off the QUAD 303 power amplifier before switching off the preamplifier (the QUAD 303 should be 'last on, first off').

#### **Standby Mode**

After initial power on, the QUAD 303 will be in 'Standby' mode. The standby button will be dimly illuminated. To use the QUAD 303, press the 'Standby' button to wake from 'Standby' mode. The standby button will illuminate.

#### **Auto Standby**

The auto standby feature will by default put the unit into standby after 20 minutes of inactivity. This feature can be configured and set to 20 minutes, 1 hour or 'never':

Long press the standby button on front panel for 5 seconds to activate the 'auto standby' setting. The standby LED will flash as you cycle 20m, 1 hour or 'never'.

Standby LED flashes once = Never

Standby LED flashes twice = 20 minutes (Default)

Standby LED flashes three times = 1 hour

#### **Source Select**

Press the LINE/XLR button on the rear panel to select different source mode.

#### **Bridge Mode**

The QUAD 303 can operate as a STEREO power amplifier or as a MONO power amplifier (in 'Bridged' mode) The default operation is STEREO mode.

To activate MONO mode, press the STEREO/BRIDGE selector button 'in'.

You will need two QUAD 303 amplifiers if using bridge mode (one for each channel). Connect the QUAD 33 to two QUAD 303 in the bridge mode connection as shown in the following section of this manual.

#### **Protection Mode**

The QUAD 303 is protected by a thermal switch which interrupts the AC power supply if the amplifier is grossly overloaded for a period of time. In case of activation of the 'protection mode' the power indicator LED flashes to indicate that the unit is in 'protection mode'. To restore operation, simply press the standby button on the front panel.

The QUAD 303 is fully protected against gross overload and a short circuited output. The unit is not necessarily protected against seriously inadequate ventilation, so please ensure appropriate ventilation to prevent any overheating associated with lack of air-flow or environmental cooling of the unit.



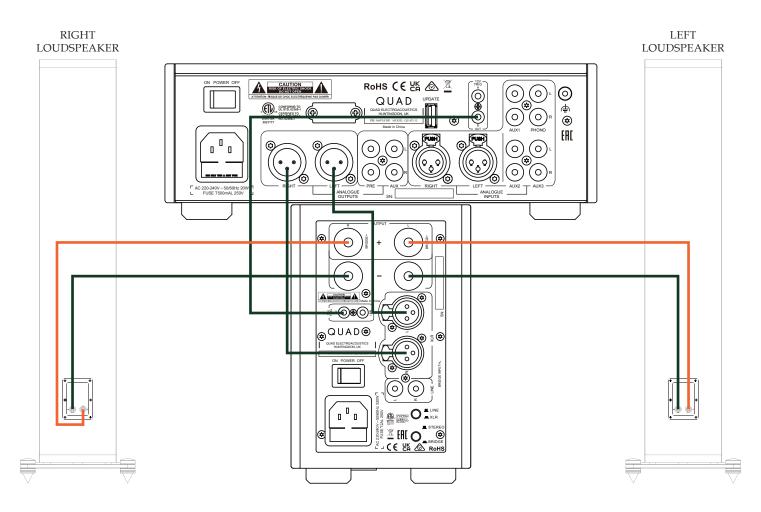


# **System Connection**

#### **Stereo mode with QUAD 33**

Press STEREO/BRIDGE on QUAD 303 rear panel to switch between the different modes.

The switch should be out for stereo mode.



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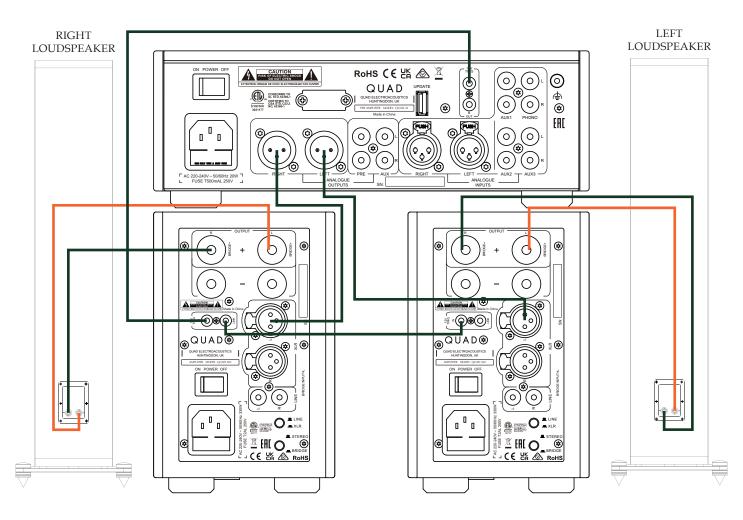
# **System Connection**

#### Bridge mode with QUAD 33

Please note that when in bridge mode with two QUAD 303 amplifiers, you must connect each speaker to the positive terminals of each amplifier channel, as shown in the diagram below.

Press STEREO/BRIDGE on QUAD 303 rear panel to switch between the different modes.

The switch should be in for bridge mode.



## **Warranty**

QUAD warrants its products, subject to the following terms and conditions below, to be free from defects in materials and workmanship.

#### **Online Registration**





Scan the QR code using a smart-phone device, for product warranty registration online.

The three (3) year extended warranty is applicable to items purchased from Jan 1st 2021, onwards. Items purchased prior to this date are not eligible for this extended warranty service but are subject to statutory warranty claims and all applicable consumer rights.

To qualify for the extended 3 year warranty, you must register your product within ninety (90) calendar days from the date of purchase.

Visit https://www.quad-hifi.co.uk/warranty-registration to complete your online registration. Items not registered online will have a Limited Warranty for one (1) year, or for the period of your country's statutory warranty, whichever is longer.

Warranty can only be offered to products registered with proof of purchase with date, model and details of the authorised dealer clearly stated on the receipt/invoice. Please keep the original receipt/invoice in case it is required for a warranty claim.

This Limited Warranty is non-transferable and is offered exclusively to the original owner.

This Limited Warranty is valid only in the original country of purchase.

Repairs or replacements are provided under this warranty are the exclusive remedy of the consumer. QUAD shall not be liable for any incidental or consequential damages for breach of any expenses or implied warranty with any product. Except to the extent prohibited by law, this warranty is exclusive and in lieu of all other warranties whatsoever, both expressed and implied, including but not limited to the warrant of merchantability and fitness for practical purpose.

This warranty provides benefits that are additional to and do not affect your statutory consumer rights.

This Limited Warranty offer is subject to correct information being submitted in your

application. Incorrect dates or mismatched purchase receipt dates that are outside of the warranty terms will immediately invalidate any warranty claim.

\*Please check with your dealer or local distributor for further information.

#### **Exclusions**

The following items are excluded from the QUAD warranty:

Normal wear and tear and cosmetic damage (including but not limited to any wear from reasonable use, environmental deterioration or neglect)

Products on which the serial number has been removed, altered or otherwise made illegible.

Products not purchased from an authorised QUAD dealer.

Products that were not new at the time of original purchase.

Products sold 'as is', 'as seen' or 'with faults'.

Product not purchased from an Authorised Dealer/Distributor within the region of the claim (ie parallel imports or grey market products)

Accidental damage or faults caused by commercial use, acts of God, incorrect installation, incorrect connection, incorrect packaging, misuse or careless operation or handling which is not in accordance with the user instructions.

Equipment that has been operated in conjunction with unsuitable, inappropriate or faulty apparatus.

Repairs, alterations or modifications carried out by parties other than QUAD or its authorised service partners.

Damage in transit that cannot be attributable to the fault of QUAD, the authorised distributor or dealer (ie. claims otherwise covered by transit insurance.)

Faults relating to abnormal or inappropriate power supply voltage or power surges.

Faults relating to extremities in temperature, exposure to heat, water or other liquids, insects, excessive moisture, sand, chemicals, battery leakage or any other contaminants.



# **Warranty**

Any force majeure events, including but not limited to any acts of God, fire, lightning, typhoon, storm, earthquake, hurricane, natural disaster, tsunami, flood, war, riot, public disturbance.

Any other causes beyond the reasonable control of either QUAD and its Authorised Distributor.

Please note items purchased before 1st Jan 2021 are not eligible for the extended warranty claim.

#### **How to Claim**

To obtain warranty service please contact the authorised dealer from which you purchased this product and present the limited warranty certificate offered upon registration of your product's extended warranty offer.

Do not dispatch goods without the prior agreement of the dealer distributor or authorised service centre.

If asked to return products for inspection and or repair, please pack carefully preferably in the original carton or packaging affording an equal degree of protection and returned via insured, trackable courier service.

The authorised dealer or distributor will offer full return details and instructions. However, please note if unsuitable packaging is used the warranty may be deemed void due to improper action in return.

QUAD or the authorised distributor, dealer or service centre may make a charge for the supply of new packaging for the return of the repaired item. Please note, insurance is recommended as goods are returned at the owner's risk. Authorised distributors or service centres can not be held liable for loss or damage in transit. insurance and freight charges on the return journey will be paid for by QUAD, authorised dealer, distributor or service centre if corrective work proves to be necessary.

In the event of 'no-fault found' or 'no repair necessary', the return shipping charge will be the responsibility of the owner.

#### **Repairs**

All repairs will be carried out by the appointed distributor (or locally appointed service centre). Repairs handled or processed without authorisation or approval of the appointed representative will be excluded from this limited warranty. Please note, QUAD is not able to supply parts or replacement items to any other entity than the official distributor or authorised service centre.

Other than the warranty and services set out in this warranty, to the fullest extent permitted by law, QUAD shall not be liable to you and/or any third party or entity whatsoever for:

- Any loss, damages and/or malfunction caused to any product(s) which is/are connected to any of the products covered by this warranty.
- Any damages, loss and liability, whether direct, indirect, incidental, consequential special, punitive or otherwise, howsoever caused by, arising out of or otherwise, in relation to the installation, delivery, use, service, repair, replacement and/or maintenance of the product;
- · Any damages, loss and liability under this warranty in respect of any act, omission, or negligence of any of their technicians, employees, agents, representatives or independent contractors relating to the actual or purported performance of any of the obligations under this warranty.

#### **Service Centre Address**

Should a fault occur with your product, please pack it correctly using the original packing, so you can ship it safely. For technical support, servicing or product queries and information, please contact either your local retailer or the office below:

IAG Service Dept. 13/14 Glebe Road

Huntingdon

Cambridgeshire

PE29 7DL

UK

Tel: +44(0)1480 452561

Email: service@quad-hifi.co.uk

For information on other authorised service centres worldwide contact QUAD International, UK.

A worldwide distributors list is available on the QUAD website: www.quad-hifi.co.uk

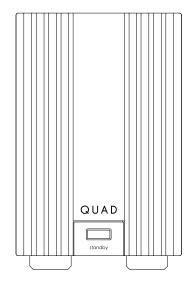


# **Specifications**

Model	QUAD 303		
General Description	Power Amplifier		
Design Philosophy and Core Technology	Class AB Power Amplifier		
	QUAD 303 Triples Output Stage		
	Custom 200VA Toroidal Transformer		
	Stereo/Bridge mode selection		
Inputs	1 x Line, 1 x XLR		
	1 x 12V Trigger Input		
Outputs	1 x Stereo Speaker		
	1 x 12V Trigger (Link)		
Power Amplifier Section			
Gain	+29dB		
FTC Power Output Rating	Stereo: 2 x 49.5W (8 ohm, THD=1%)		
(The rated power output is measured in compliance with the FTC standard test conditions )	Stereo: 2 x 70W (4 ohm, THD<1%)		
110 stantage contents (	Bridge: 140W (8 ohm, THD<1%)		
	Bridge: 170W (4 ohm, THD<1%)		
Frequency Response	20Hz - 20kHz (+/-0.3dB)		
Total Harmonic Distortion (THD)	<0.002% (1kHz)		
Input Impedance	15k ohms (Line)		
	22k ohms (XLR)		
Input Sensitivity	695mVrms (Line)		
	1.5Vrms (XLR)		
Signal-to-Noise Ratio (S/N)	> 108dB (A - weighted)		
Max. Output Current	10A		
General			
Standby Power Consumption	<0.5W		
Net Weight	8.4kg		
Gross Weight	9.5kg		
Dimensions (mm) (W x H x D)	120 x 176 x 325		
Carton Size (mm) (W x H x D)	226 x 312 x 462		
Finish	Classic QUAD Grey		
Power Requirements (depending on region)	220 - 240V - 50 / 60Hz		
	100 - 120V - 50 / 60Hz		
Standard Accessories	Power Cable, User Manual		

#### FTC Standard Test Conditions (§ 432.3 Standard test conditions.)

Any power level from 250 mW to the rated power shall be obtainable at all frequencies within the rated power band of 20 Hz to 20 kHz without exceeding 1.0% of total harmonic distortion plus noise (THD+N) at an impedance of 8 ohms after input signals at said frequencies have been continuously applied at full rated power for not less than five (5) minutes at the amplifier's auxiliary input, or if not provided, at the phono input. Provided, however, that for amplifiers utilised as a component in a self-powered subwoofer in a self-powered subwoofer-satellite speaker system that employs two or more amplifiers dedicated to different portions of the audio frequency spectrum, any power level from 250mW to the rated power shall be obtainable at all frequencies within the subwoofer amplifier's intended operating bandwidth without exceeding 1.0% of total harmonic distortion plus noise (THD+N) at an impedance of 8 ohms after input signals at said frequencies have been continuously applied at full rated power for not less than five (5) minutes at the amplifier's auxiliary input, or if not provided, at the phono input.













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