

TRILOGY
USER MANUAL

931

THANK YOU

Welcome

Firstly, thank you for purchasing your Trilogy Audio Systems 931 Headphone Amplifier, we value your custom.

We strive to design and build world class products that stand the test of time. By reading this manual you can gain clear understanding of its operation and learn to care for it correctly. In turn, it will reward you with a lifetime of outstanding performance.

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Nic Poulson.
CEO Trilogy Audio Systems.
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Introduction

We prefer that your Trilogy dealer explains your 931's operation to you. However, we still recommend that you read through this manual thoroughly and keep it to hand for reference.

Should any part of this manual or the operation of the 931 not be clear to you, please do not hesitate to contact your Trilogy dealer. If they are not available please contact ourselves directly.

Unpacking

Be careful when unpacking your Trilogy headphone amplifier. Store the packaging safely for future use. It is the ideal method of protecting your amplifier from damage during transport.

Environment

Do not site the headphone amplifier near liquids, or place water-filled containers near the unit. If water does come into contact with the unit there is serious potential for an electric shock or fire hazard. Immediately pull out the mains plug from the wall socket. Contact your dealer to arrange an inspection before further use.

The 931 is cooled by convection and so needs good circulation of room temperature air under and around it. Do not place it near sources of heat such as radiators or in direct sunlight. Do not enclose in a cupboard. Do not place directly on carpet.

A flat, smooth surface is required. As with all high resolution audio equipment, your amplifier is sensitive to vibration, strong magnetic fields and radio interference. A dedicated high performance equipment platform sited away from other appliances is the optimum location.

Power Supply

The AC input voltage has been set for the country it was purchased in. Check that the label on the rear panel matches your AC supply voltage before plugging in. The AC inlet cable provided should be used. If another cable is used check it is wired correctly and fused appropriately.

The wires in the AC input cable supplied are coloured in accordance with the following code:

Green and yellow	Earth
Blue	Neutral
Brown	Live

The amplifier must be earthed. Do not disconnect the AC earth at any time. If in doubt about any aspect of power supply, consult your Trilogy dealer or a qualified electrician.

A direct connection to a mains outlet is best for your amplifier, avoid adapters. To realise your amplifier's full potential we recommend high quality mains conditioning. See www.isol-8.co.uk for more on power supply and system solutions from our highly acclaimed sister company.

Warning!

The 931 must be earthed. Do not disconnect the AC earth at any time. If in doubt about any aspect of power supply, consult your Trilogy dealer or a qualified electrician.

The IEC inlet carries a ceramic 20mm fuse. If the unit stops working, check and replace this fuse with one of the same type and value if necessary: 250mA T for 230V version, 500mA T for 100V and 120V versions. If the fuse repeatedly fails, do not use the unit and contact your Trilogy dealer for service.

Listening with Headphones

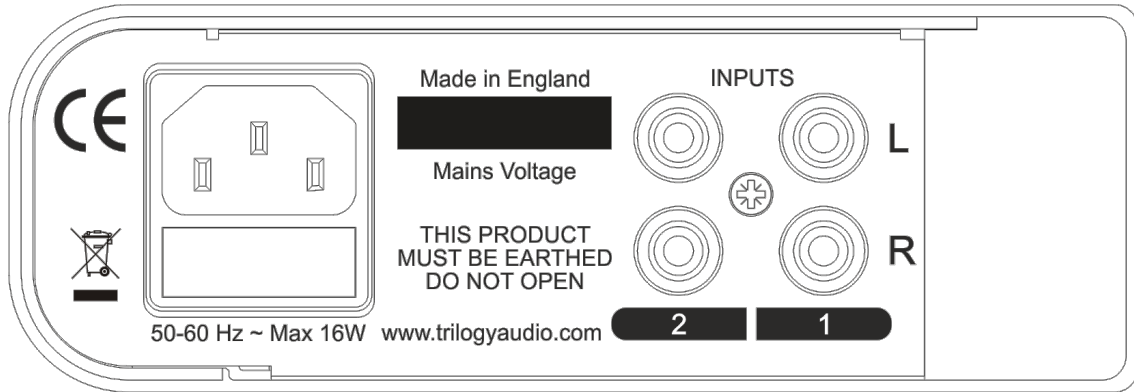
IMPORTANT!

The 931 is capable of delivering high sound pressure levels. Listening at high sound pressure levels may result in permanent hearing damage. The following table is intended as an approximate guide to recommended exposure levels.

Example Source	Sound Level	Max Exposure
Train Passing 10m	90 dbA	8 hrs
Circular saw 1m	95 dbA	4 hrs
Motorcycle pass 1m	100 dbA	2 hrs
Chain Saw 1m	105 dbA	1 hr
Rock Concert 10m	110 dbA	0.5 hr
Police siren 10m	115 dbA	0.25 hr or less

Hearing damage is a complicated issue. Users are urged to familiarise themselves thoroughly with current government recommendations if regularly listening. Listening using high performance headphones with low distortion can be subjectively misleading. The user may not be aware that high levels are being reached. Trilogy recommends caution when setting listening levels.

Trilogy 931 | Rear View



Connections

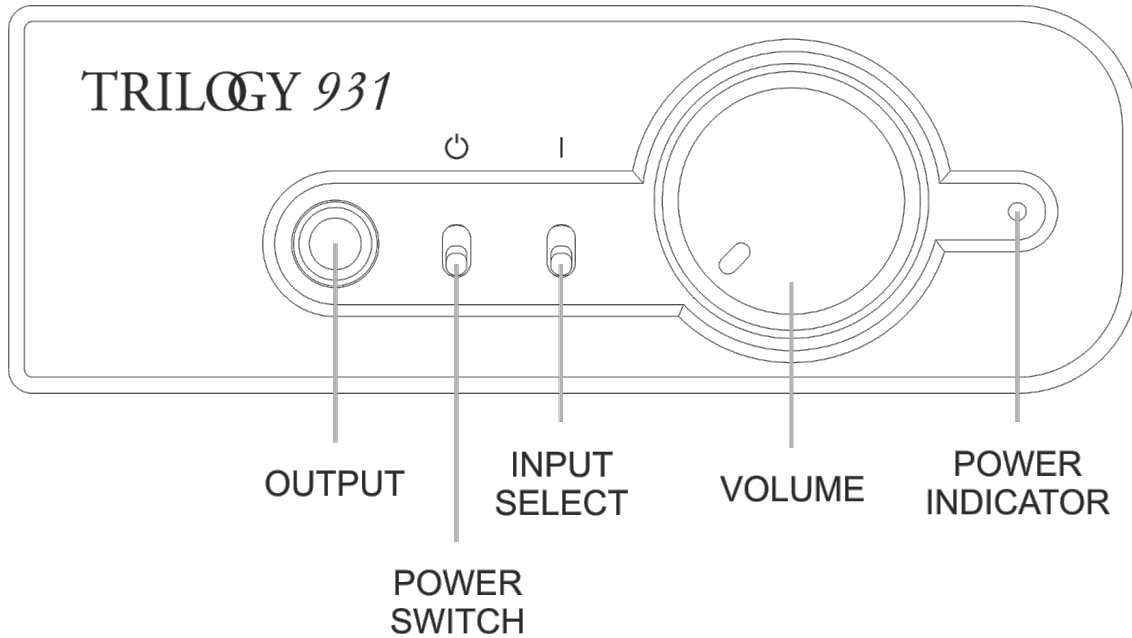
It is good practice to complete all interconnections before switching on to avoid any damage to your headphones while plugging in.

The IEC inlet provides the unit with power. Connect with the supplied AC input cable. It can be left connected at all times to ensure reliable operation. If not being used for extended periods of time, switch off at the mains outlet.

The amplifier has two single ended inputs on RCA “Phono” connectors.

The output is via a standard 6.35mm (1/4”) type A jack socket. Most dynamic headphones are suitable for connection; if you are in doubt about the suitability of your headphones seek advice from your Trilogy dealer.

Trilogy 931 | Front View



Operation

Check all appropriate input, output and AC connections. Check that the volume control is set to a moderate level. To turn on the 931 push the power toggle switch down. The power indicator will light red. The 931 is now ready for use.

Optimal performance will be achieved in about 20 minutes once the headphone amplifier has become quite warm to the touch. The high mass heatsink for the output devices is at the heart of the 931's design. Normal extruded finned heatsinks resonate quite badly, this has a negative effect on the small signal performance of the output stage. The 931's heatsink is machined from a solid billet and deliberately designed to be of high mass and low efficiency. This maintains the 931's output stage at the optimal operating temperature whilst amplifying music. This temperature of the heatsink will vary slightly depending on the temperature of your room, but will typically be 45 degrees Centigrade. This will feel quite warm to the touch and is quite normal.

Inputs are selected by the toggle switch on the front panel. Input 1 is selected when the switch is up, Input 2 when the switch is down.

Volume is controlled by the rotary knob on the front panel.

To turn the amplifier off push the power toggle switch up.

Cleaning

Dust the unit regularly with a soft cloth or soft brush. For more stubborn marks make sure the unit is switched off and disconnected from the power supply. Use a slightly damp cloth with a very small amount of mild detergent such as washing up liquid. Do not use a wet cloth. Be careful when using cleaning or polishing agents. Never use abrasives or alcohol based agents, they will harm the surface finish. Do not allow the unit to become wet when cleaning.

Servicing

Your 931 has been designed to provide a lifetime of reliable service and should not need servicing if operating normally.

There are no user serviceable parts inside. Do not open or attempt to repair the unit. Refer to your authorised Trilogy dealer for servicing.

Declarations

This product is guaranteed against defects in material and workmanship for 3 years from the date of purchase. The Guarantee is not transferable and is offered to the original purchaser only. This guarantee does not limit your statutory rights within the country of purchase.

Failure to comply with any of the above instructions during installation or operation will render the manufacturers warranty null and void.

Marking by the "CE" symbol indicates compliance of this device with the EMC (Electromagnetic Compatibility) and LVD (Low Voltage Directive) standards of the European Community

The 931 has been tested to ensure that its operation is not adversely affected by normal background levels of radio frequency interference, and that it does not itself generate excessive amounts of radio frequency energy.

If your 931 exhibits sensitivity to nearby radio frequency devices or is suspected of affecting another device, increase the distance between them. If the problem persists, consult your Trilogy dealer.

Glossary

AC	Alternating current: The electrical polarity reverses over time. Used mostly for high voltage power transmission such as mains.	Power	The combination of voltage and current delivered by an amplifier into an electrical load of specified impedance.
Burn In	Period of time, which a new assembly takes to reach mechanical and electrical equilibrium.	DC	Direct current: The electrical polarity is constant. Used mostly for powering active circuits.
Impedance	The complex electrical resistance the headphone presents to the amplifier.	Gain	The ability of a circuit to increase the power or amplitude of a signal from the input to the output.
Sound Pressure	The volume of sound received by the ear.	Class A	A circuit topology where the music waveform is amplified using active devices which remain continuously biased throughout the waveform cycle, eliminating crossover distortion.
Sensitivity	The efficiency of the headphone in turning electrical energy into acoustic energy.	Single Ended Class A	The circuit topology used by the 931 which amplifies the music waveform using a single active device operating in Class A. This gives all the advantages of normal Class A operation, plus it eliminates the additional distortion which is due to imperfect matching of multiple output devices, as used by the more common push-pull topology.

Specifications

Size	140*237*50 (W*D*H)	Frequency response	20-20KHz +/- 0.5dB
Size incl. Connectors	150*244*50 (W*D*H)	Output impedance	10 Ohms
Weight	1.65Kg	Output Power	800mW into 60 Ohms 200mW into 300 Ohms
Power Consumption	16 Watts	Distortion (THD)	0.05% 10mW into 300 Ohms
Inputs	2 stereo line level on RCA phono sockets	Signal to Noise Ratio	85dB A Weighted
Input Impedance	50 kOhms	Phase	Phase correct (non inverting)
Gain (max)	18dB		

SPECIFICATION SUBJECT TO CHANGE

Returns

Should it be necessary for your 931 to be serviced, please send it in the original packaging to your dealer.

If this is not possible please contact us directly and request a Return Authorisation Number. Please mark this number in the space provided on the outer packaging. Please do not send products back to us without this number as we will not accept liability for the product.

If a product is not returned to us in its original packaging, after servicing we will return it, in Trilogy packaging and a nominal charge will be made.

Disposal & Recycling

At the end of the 931s working life it must be disposed of correctly, it is made to the highest standards with materials which can be recycled wherever possible. Do not dispose to landfill, contact your dealer or Trilogy for information regarding return for correct disposal.

Whilst the information given in this document is correct at the time of printing, small production changes in the course of our Company's policy of improvement through continued research and development might not necessarily be indicated in the specification.

If clarification of any point or specification is required, please refer to your Trilogy dealer.

We welcome your feedback, whether positive or negative, to help us further refine our products.

Please write to; Trilogy Audio Systems, PO Box 56402, London SE3 7WQ, United Kingdom
Or email; user@trilogyaudio.com
Please visit our web site; www.trilogyaudio.com

Acknowledgements

Many people have worked tirelessly to bring the 931 to you, and I would like to take this opportunity to thank Emeka Chigbu, Nigel Crump, and Simon Dart for their dedication to this project.

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