

QUAD

the closest approach to the original sound.

VACUUM TUBE AMPLIFIER SYSTEMS



Classic
series



The Quad II-forty

THE QUAD II-FORTY valve amplifier is not only one of the finest sounding valve power amplifiers available in the market place today, it is an aesthetic and engineering masterpiece.

An understated elegance lies beneath the smooth curves and lustrous finish, for the power amplifiers use a circuit dating back over fifty years to the time when vacuum tubes ruled the electronics industry and Peter Walker considered by many to be the master of audiophile design.

He often shunned traditional thinking, preferring to go his own way, relying on excellence in circuit design. Circuits that are still admired today by the finest minds in electronics-for their stunning performance and, by today's standards, simplicity.

“Factor out nostalgia. Forget the miracle of Quad making valve amps in the 21st century. Look at the Quads in terms of a current pre/power tube combination. Then look at the opposition. Now factor in gorgeous styling, superb build quality, perfect ergonomics, ample grunt, genuine heritage and the kind of sound which allows valve enthusiasts to show two fingers to transistor users.”

– Ken Kessler, Hi-Fi News



The Quad II-forty power amplifiers are much more than a tribute to one of the most famous designs in audio - they are both refined and powerful in the modern sense of the terms.

Although the circuit topology has changed little from the original, significantly better components and a brand new transformer design - still delicately balanced - means that they are fast, crisp and detailed, whilst producing an output current, more than capable of driving modern loudspeaker loads, even our very own ESL loudspeakers are well within their capabilities.

The champagne finished chassis is strong and heavy, internally wired with solder tags - not PCBs. The KT-88 output valves in push-pull configuration

are visually stunning, sitting safely within a cage to protect them. Gold-plated phono connectors replace the ‘Jones’ plugs of the original - with a choice of 4ohm or 8ohm taps, allowing for the widest possible choice of loudspeakers.

Every product we make is hand-built by craftsmen for a lifetime of duty. Quad products rarely, if ever, need replacing and we regularly service and maintain products over fifty years old.

This means many of the original Quad II amplifiers have been passed down, into the hands of the children - and even grandchildren - of the original owners, something that is uniquely Quad in essence. A product that is relevant today and will remain so for generations to come.



Quad products have always been amongst the finest audio products in the world. When Peter Walker started making commercial PA systems in 1936, few could have predicted the revolution in hi-fi that many of his products were to cause, the longevity they would have and the esteem with which they would be held.

In the early 1950s, he and Gilbert Briggs, founder of Wharfedale, embarked upon a series of now famous concerts demonstrating how real high-fidelity music should be virtually indistinguishable from a live performance. In order to prove this they toured such venues as the Royal Festival Hall in London and Carnegie Hall in New York. Audiences were amazed at the similarity the Quad amplifiers were able to reproduce relative to the live performance.

Since these early demonstrations of true high-fidelity, our product philosophy has remained constant, to produce a sound which as closely as possible replicates the experience of the live performance. For many other manufacturers, the term hi-fi may mean ‘exciting’ or ‘dramatic’ and this can be easily produced without regard to what the music sounded like in the concert hall for the listener and may sound ‘impressive’ to the uneducated ear, but in reality is no substitute for the sound produced by ‘real’ hi-fi.

“Musicians and recording artists all over the world have long recognised the outstanding quality of Quad products – exquisite engineering, build-quality, finesse and refinement.”

The Quad II-eighty



The Latest addition to the Quad Valve Power amplifier series is the long-awaited Quad II-eighty amplifier. The perfect partner to our latest ESL speakers, the II-eighty is not merely a nod in the direction of retro styling, it's a modern high-performance amplifier designed by one of the most famous tube-amplifier designers in the world (Tim De Paravicini) using more than a little inspiration from the original Quad II amplifier.

The Quad II-80 is an 80 watt mono power amplifier following in the tradition and philosophies of Peter Walker. The output section consists of 4 KT88 valves running as two pairs in push pull with the hallmark Quad topology of partial cathode loading in the output transformer.

This method reduces distortion when compared to the usual Ultra Linear or triode methods, however, it does require a greater grid driving voltage. This is achieved, again in true Quad fashion, using a balanced pair input stage.

The output transformer has been designed to improve high frequency performance and accurately balance the two push pull halves. Also the transformer has been designed to make sure that full output is realised at the bass frequencies down to 20 Hz.

Each output valve has its own cathode resistors to provide reliability and self-matching. The screen grids of the KT88 valves are run from a lower voltage, again for good reliability. The whole amplifier has a total of only 16 dB of feed-back providing good stability into virtually any known loudspeaker and especially the famed Quad electrostatic loudspeakers.



The Quad QC-twentyfour

Unlike the power amplifiers, the Quad Control unit utilises a completely new circuit design. Once again, the circuit is simple in concept yet remarkable in execution. Our designers scoured the globe for the very finest components, with possibly the best example of this being the new 'old stock' 6111WA double triode.

Designed as a special military valve, it is hard wired to the circuit and has an estimated life of nearly 100,000 hours. Together with transformers designed by one of the World's leading authorities and relay input switching, the musical signal is preserved in its purest form - pursuant to the philosophy of the theoretical perfect amplifier which, as Peter Walker himself stated, is 'a straight wire with gain'.

"It is so much better in terms of high fidelity, in its purest sense. It reminded me how Quad retain an almost unique grip on the concept."

– Noel Keywood, Hi-Fi World



“Quad has succeeded where few of hi-fi’s gamblers dare: They’ve followed the ESL-989 with not just a worthy amplifier, but with a silent smooth and precise control unit as well.”

– Ken Kessler, Hi-Fi News



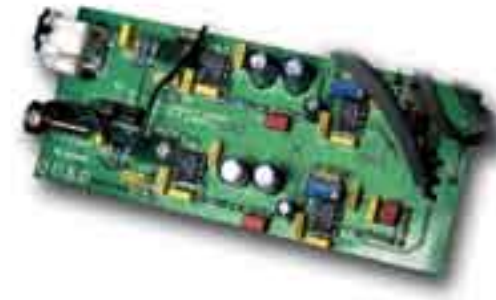
Peter Walker always believed that an amplifier should be as simple as possible - engineer with the fewest possible components and with a performance largely independent of those components.

The QC-twenty-four, a low-noise RIAA curve phono stage has an understated elegant simplicity, although we use high quality components wherever these appear in the signal path.

Bifurcated contact relays (crossing each other at right angles to make a better contact) are used on each input to maintain the best possible signal conduction. Gold-plated connectors and a carefully screened enclosure are further examples of the attention to detail throughout the construction.

The total line gain is 15dB, with a high quality potentiometer controlling the output levels. Reminiscent of the original QC-22 control module, there is a simple balance control allowing for variation from left to right of up to 12dB.

Amplification is provided courtesy of a twin triode 6111, new old-stock valve - originally designed for use in the guidance systems of missiles and manufactured to exceptionally high tolerances. The remarkably long expected life-span of this valve means we can comfortably build it into the PCB without the compromises usually experienced when using valve seats. Two buffered tape loops are provided as standard.



The standard QC-twenty-four is line level only. There is an option of a solid-state phono stage which can be added when new, or at a later stage.



A completely new design, the QC-twenty-four pre amplifier is both neutral and detailed. Using a military specification 6111 valve, which is so reliable, it's hard-wired to the circuit board.

Everything has on this pre amplifier has been designed to maintain optimum signal purity. From

the relay switching to the gold-plated terminals, each component has been selected specifically for its audio performance.

The chassis is painted to match both the Quad II-Classic and the Quad II-forty power amplifiers, making it the perfect partner to both systems.



The Quad QC-phono stages

For the analogue purist, the combination of a good valve amplifier and a good turntable is the closest possible approach to the original recording.

There are two options for adding such functionality to our valve pre-amplifiers.

A solid-state module is available for the standard QC-twenty-four pre-amplifier (known as the QC-24 phono stage) which allows direct connection of a turntable with an internal switch to change between moving coil and moving magnet cartridges. This can be fitted as standard or added later.

For the connoisseur however, there is the Quad twenty-four P dedicated valve phono stage. This has been designed for Quad by valve supremo Tim DeParavicini - probably the finest valve amplifier designer in the world today. It has been voiced by the finest ears in the industry and will add an entirely new dimension to your enjoyment of vinyl recordings.

This unit features a moving magnet/ moving coil toggle switch on the rear, and a choice of direct full level output, or a variable level output if you wish to connect directly to a power amplifier.

Designed by valve supremo, Tim DeParavicini, the Quad twenty-four P is a stunning addition to the range. Designed holistically with the power and pre-amplifiers, it brings an entirely new dimension to vinyl listening





The Quad II-classic

This is a faithful reproduction of the original, the new Quad II Classic offers audiophiles the chance to recreate the spirit and atmosphere produced from one of the most famous amplifiers in audio history.

The original Quad II was first launched in 1953, designed by Peter Walker. At the time, many of his contemporaries were also producing good quality valve amplifiers. The Quad II looked, in comparison, very simple and unassuming, but its performance was far beyond that which its diminutive dimensions might suggest.

The property which set the Quad II amplifier apart from other amplifiers of the time was its output stage. It was arranged such that the cathode coupled circuit emulated the performance of triode operation, but with the size and efficiency characteristics of pentode operation. It was this breakthrough that ensured the Quad II was to remain in continuous production until 1970.

Peter's circuit, notably the design of the output transformer, has become the stuff of legend amongst electronics engineers. Studied and analysed by the finest minds in the industry, the elegance and coherence of the design is still regarded as a reference today.

Given the quite modest components of the day, he was able to engineer something which was quite literally greater than the sum of its parts.

The Quad II classic has been recreated accurately with output valves and input valves the equivalent of those used in the original design. The same balancing act has been employed to ensure the same wealth of detail and gentle tone of the original.

The output valves produce around 15w per channel, operating in Class A which, although slight by modern standards, allows a gloriously sweet and refined sound with appropriately matched contemporary loudspeakers.



'the closest approach to the original sound...' has been a Quad philosophy since 1936. More than just a slogan, it underlies the company's commitment to producing the finest audio equipment, capable of reproducing all the elements and emotion of a live performance.

Quad sound systems have always provided high levels of listening pleasure to their owners. Our philosophy has always been one of reproducing the ‘live’ experience in the comfort of your own home.

Whilst many modern amplifiers are stunningly accurate and offer breathtaking resolution and distortion figures in tiny fractions of a percent, many also loose sight of the overall aim - which for Quad, is to bring pleasure to the listener by recreating the entire range of sensory experiences felt at a live performance.

For many audiophiles, just as vinyl will never be truly replaced by digital music, the vacuum tube communicates on an emotional level that can never really be surpassed by a transistor based design.

The Quad II classic is one of the finest of these vacuum tube amplifiers. Although small in dimension and modest in design, the purity with which it conveys, not just the musical score, but the sense of space; the passion of the vocal and the range of textures from the instruments in any performance, is without peer.

As a piece of audio history, the Quad II circuit was pivotal in creating what we know of as genuine ‘hi-fi’ today. As a design statement, the Quad II is not only as relevant today as it was over fifty years ago, it is remarkable in its absolute longevity. Yet the only important factor is that the Quad II Classic can bring the same pleasure to today’s discerning customer that has been experienced by generations of Quad enthusiasts.

“The Quad II Classic uses the finest quality components, each hard wired onto a robust chassis with solder tags..”



specifications

Model	II-forty	II-classic*	II-eighty
Power Output	40W RMS	15W RMS	80W RMS
THD @ 700Hz	0.3% @ 40W 0.03% @ 1W	0.3% @ 12W	0.3% @ 40W 0.5% @ 80W
Residual hum & noise	Better than -80dB	Better than -90dB	Better than -94dB
Frequency Response	10Hz–30kHz(+0dB/-0.5dB)	10Hz–20kHz(+0.2dB)	10Hz–30kHz(+0dB/-0.5dB)
Damping Factor	20 @ 700Hz	11.75 @ 700Hz	16 @ 1kHz
Power Consumption	180W maximum	90Va maximum	180W maximum
Loudspeaker Taps	4 ohm and 8 ohm	8 ohm	4 ohm and 8 ohm
Valves	2 x 6SH7 Input 2 x KT88 Output 1 x 5U4G Rectifier	2 x EF86 input 2 x KT66 Output 1 x GZ34 Rectifier	2 x 6SH7 input 4 x KT88 Output 1 x 5U4G Rectifier
Sensitivity	1V RMS	1.4V RMS	1V RMS

*The Quad II Classic power amplifiers are supplied in matched pairs.

Model	QC-twentyfour	QC-twentyfour P
Valve Complement	1 x 6111 twin triode	Valve Complement 4 x 6111
THD @ 1V RMS	<0.2% 0.02% @ 1W	THD <0.08% (A-weighted)
Frequency Response	5Hz–50kHz (+0dB/-0.5dB)	Frequency Response 20Hz–20kHz (+0dB/-0.5dB)
Hum and Noise	Better than -80dB	Hum and Noise Better than 60dB
Line Stage Gain	15dB	Input Impedance Moving magnet 47Ω Moving coil 10Ω
Recommended Min. Load	50k ohms	Stage Gain High sensitivity 1.3mV (MM)/130uV (MC) Medium sensitivity 2.6mV (MM)/260uV (MC) Low sensitivity 5.2mV (MM)/520uV (MC)
Inputs	5 x Line level 2 x Buffered tape loops	Nominal output level (ref 5.2mV, MM, Low) 1.0 Inputs Selectable MC/MM cartridge Outputs 1 x fixed line level 1 x variable line level
		Power consumption 15 VA maximum

