

S Series



QUAD

the closest approach to the original sound.

Where It All Started

It was way back in the mono days of 1949 that Quad launched its first loudspeaker, the Corner Ribbon. This was, indeed, a prestige product, but it offered something special, a particularly clear and detailed upper midrange to treble performance from a large and delicate ribbon driver.

Plaudits abounded from the press and everyone who heard the Corner Ribbon. The Gramophone observed :

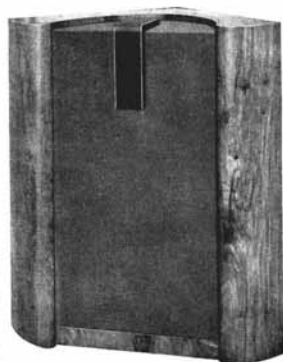
“...smoothness, naturalness, and fidelity of reproduction has yet to be surpassed and, with very few exceptions, even approached.”

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

DEPTH PERSPECTIVE..

The ability of a reproducer in separating the instruments of an orchestra is dependant among other factors upon the area from which the sound appears to emanate. Many experimenters will have found that a larger area appears to improve orchestral analysis but that it detracts from the realism of solo instruments and the human voice. In the Corner Ribbon Loudspeaker, the sound source is small and forward, but it radiates a proportion of sounds in nearly all directions, including upwards and to the rear. The sound pattern reproduced from solo instruments is very similar to that obtained in nature and it is probably the only loudspeaker which can be used in direct comparison laboratory tests to give a complete illusion of most instruments to a critical audience. With an orchestra, the larger microphone distances influence the acoustics of the recording so that the apparent sound source in the loudspeaker recedes. Reflections from the back radiation add to the area of sound so that it now appears to emanate from an opening of eight to ten square feet.

The above is just one of the reasons why the Corner Ribbon Loudspeaker gives an analysis of sound in natural perspective.



THE
CORNER RIBBON
LOUDSPEAKER
£83

A booklet describing the development of this loudspeaker is available on request.



It is important to remember that a good loudspeaker will give you music, noise and distortion, all faithfully reproduced. The Q.U.A.D. amplifier used with a good loudspeaker will give you the closest approach to the original sound.

THE Q.U.A.D. AMPLIFIER **£35**
in two units as illustrated

ACOUSTICAL
MANUFACTURING CO. LTD.
HUNTINGDON - HUNTS - TEL. 151



Dimensions of the Corner Ribbon loudspeaker are: height, 14in.; maximum radius, 2 1/2in. The high-frequency horn is segmented to give improved sound distribution.

Corner Ribbon Loudspeaker

Realistic Sound Distribution

spherical and an elliptical reproducing point on high quality recordings is at once apparent.

The bass response is smooth, and judging from some organ recordings, effective down to frequencies of the order of 20 to 30c/s. In the top register the character of surface noise is much less objectionable than usual, due no doubt to the effective damping of the ribbon and the absence of resonant coloration. The response has not been measured by the makers above 18kc/s, but is believed to extend to 20kc/s.

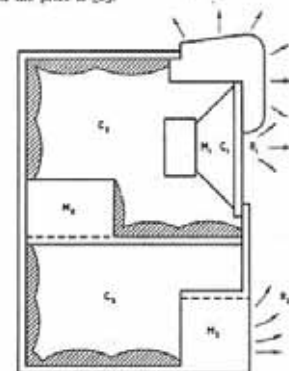
A cross-over network is included and the input impedance is 15 ohms. It is important that sustained single-tone inputs to the h.f. unit should not exceed a power of 1.5 watts, but on speech and music the power input to the loudspeaker as a whole can be raised to 7.5 watts. Normally, the Corner Ribbon loudspeaker will be installed by the manufacturer, and the price is £83.

THE development of this high-quality reproducer, which is made by the Acoustical Manufacturing Company, of Huntingdon, has been carried out against a background of measurement and subjective listening tests involving comparison between the original and the reproduced sound. In deciding on the final design, considerations of materialness and "presence," for which methods of measurement have not yet been evolved, were given due weight.

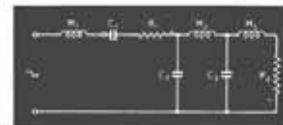
Essentially, the unit comprises a twin cone diaphragm loudspeaker for low frequencies and a horn-loaded ribbon diaphragm for frequencies above 2,000c/s. The back radiation from the l.f. unit is modified by a two-stage acoustic filter and emanates from a vent at the bottom of the cabinet. Two stages are used to give a smooth downward extension of the low-frequency response without introducing complications in the region of 150-200c/s.

The 0.00025in-thick aluminium ribbon diaphragm of the h.f. unit is loaded at the front by a multiple horn designed to give the optimum distribution both vertically and horizontally. The back radiation is directed towards the corner walls of the room and provides further extension of the sound source to enhance the realism of orchestra music. On speech the residual directional properties of the main cone predominate and give the appropriate effect of a point source.

We have had an opportunity of listening to this loudspeaker on a variety of programmes, and the manner in which the apparent source adapts itself automatically to the frequency content of the original is strikingly effective. Another outstanding quality of the performance is the transient response. One does not need to wait for loud and dramatic passages in the music to demonstrate this. It is there all the time, in the bowing attack of strings in pianissimo passages and in other subtle ways that will be appreciated by those that have ears to hear. For instance, the difference in quality between a



Section of bass acoustic filter, with equivalent circuit. R_1 and R_2 represent radiation resistance of the front of the cone and the cabinet vent.





Quad S2 Speakers in Black Oak pictured with Quad Artera Play CD Player /
DAC and Artera Stereo Power Amplifier



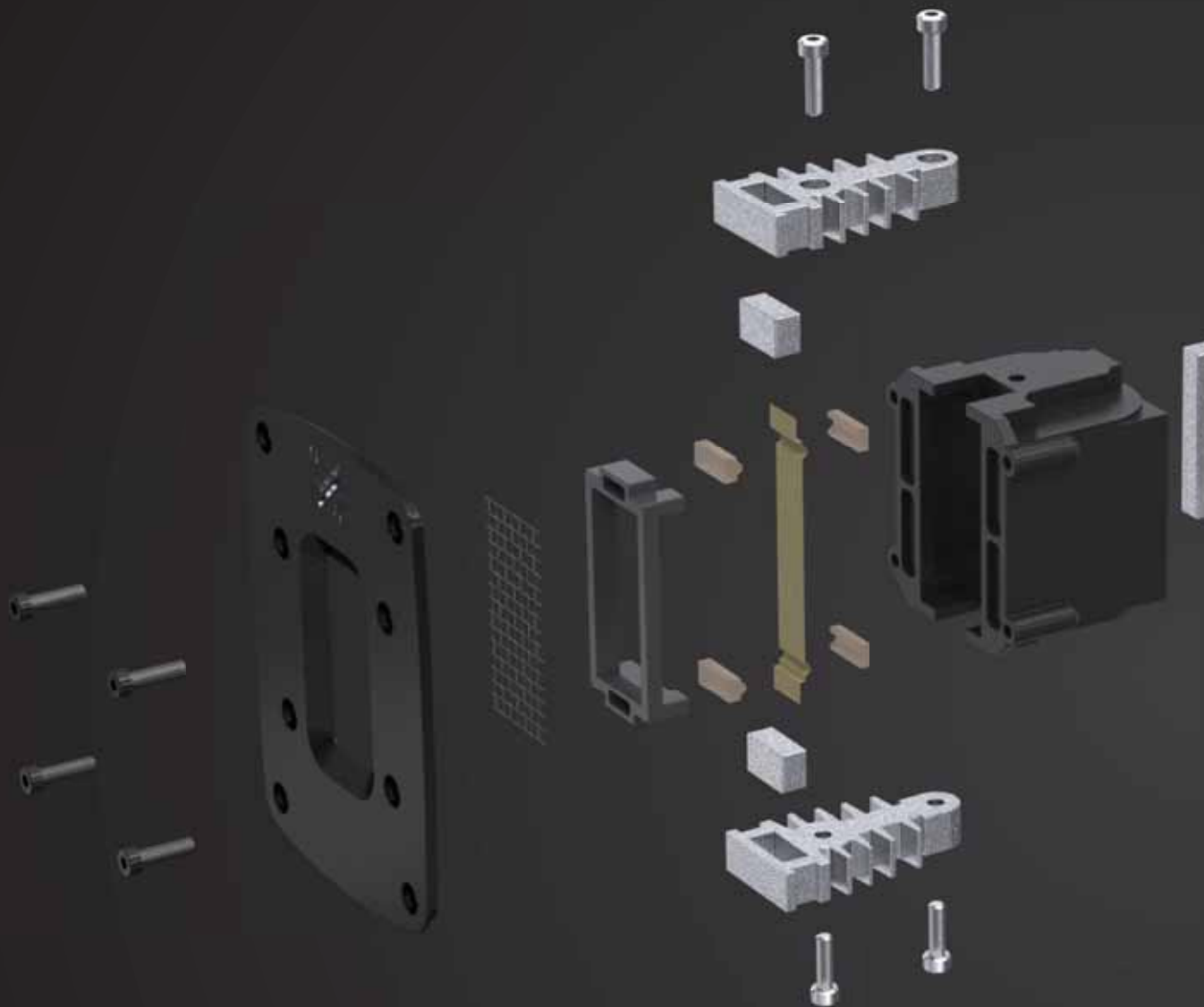
Then And Now

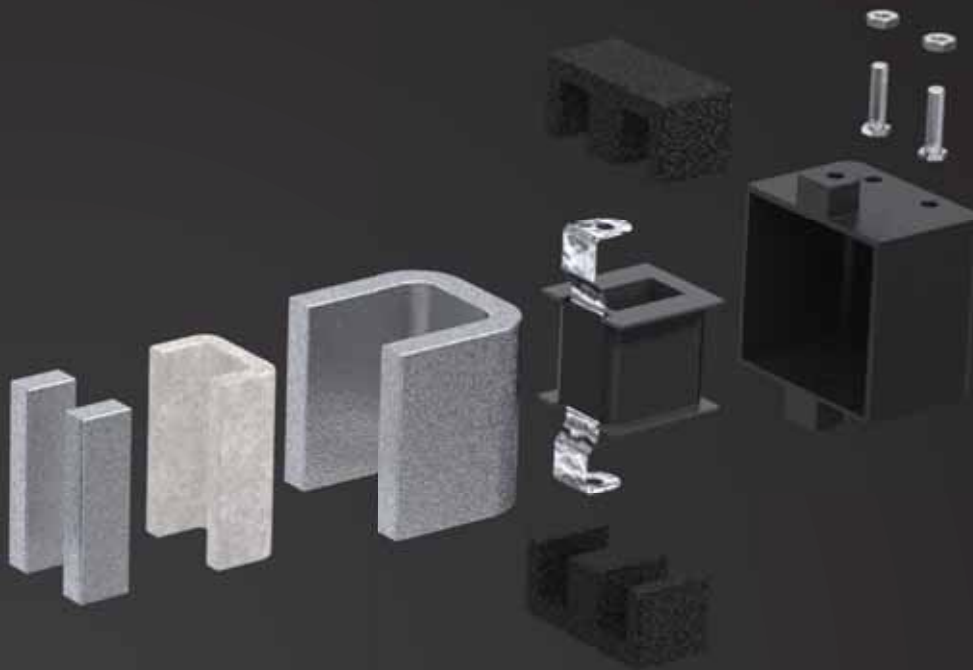
The Quad corner ribbon was a speaker incomparable to competitors at it's time, all with thanks to the Quad ethos, which is still adhered to in all product development and to deliver; "The Closest Approach To The Original Sound".

Being our first ever commercially available loudspeaker, the Corner Ribbon was not completely perfect - it generated a relatively low power and the ribbon unit was very fragile. As we know founder Peter Walker moved on to develop the world's first full range, push-pull Electrostatic speaker, if not the most iconic loudspeaker of our time.

So, to make a ribbon unit that handled today's high power amplifiers and to do the original Corner Ribbon justice was no mean task. The S Series ribbon accomplishes this by utilising 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, S Series ribbon is both the diaphragm and the motor system.

While taking influence from the unparalleled success of the ESL speaker, the ribbon itself is engineered to be extremely light and thin, which delivers the startling accuracy and wide coverage Quad is famous for.

The result is a unique combination of delicacy, smoothness and hear-through performance that helps make your music sing.



Driver Technology

The ribbon tweeter is aligned with Quad's Kevlar-coned bass and midrange drivers through sophisticated crossover networks. Through our extensive and innovative approach to loudspeaker design on the floorstanders of S Series, ABRs or auxilliary bass radiators have been implemented, and offer many benefits when compared with conventional bass reflex ports.

In inferior loudspeakers, air rapidly moving in and out of bass ports can cause an unwanted "chuffing" sound. While ABRs replace the mass of the air in the port tube with an equivalent mass diaphragm, they significantly reduce distortion and give a more stable sound with lower bass extension.

The result of this is that the clarity of the bass frequencies are equally matched with the detail of the ribbon tweeter – these frequencies extend right down to reach the fundamentals of orchestral instruments, creating our signature, breathtaking sound we are known for and as found in the original ESLs.





The Finishing Touch

Beautifully presented with rounded top edges at the front and rear, each speaker cabinet uses a sandwich construction of alternate layers of MDF and high-density particleboard to reduce panel resonance to below the level of audibility. Aesthetically, the look is classically Quad yet subtly updated, available in a choice of black or sapele mahogany wood veneers or a premium, hand-lacquered finish option, either in black or white.



Sapele Mahogany



Black Oak



Piano Black



Piano White





“ A very grown-up, transparent and sophisticated sound from a little speaker... A baby box touched by the magic of Quad's most expensive designs ”

Quad S1 - Hi-Fi Choice, December 2015

Specifications



Model	S1	S2
General Description	bookshelf	bookshelf
Enclosure type	vented box	vented box
Transducer complement	2-way	2-way
ABR		
Bass driver		
Midrange driver	100mm Woven Kevlar	125mm Woven Kevlar
Treble driver	45 x 12mm true ribbon	45 x 12mm true ribbon
Sensitivity (1W @ 1m)	84dB	87dB
Recommended amplifier power	25-150W	25-150W
Nominal impedance	8Ω	8Ω
Minimum impedance	4.2Ω	4.5Ω
Frequency response (+/-3dB)	58Hz - 20kHz	48Hz - 22kHz
Bass Extension (-6dB)	55Hz	37Hz
Crossover frequency	3.2kHz	3kHz
Cabinet Volume (in litres)	6.7L	10.3L
Dimensions	285 x 156 x (240 + 30)mm	330 x 180 x (260 + 30)mm
Net weight	5.2kg each	6.1kg each



S4

floor-standing

ABR

3-way

3 x 125mm

2 x 125mm Woven Kevlar

100mm Woven Kevlar

45 x 12mm true ribbon

88dB

40-200W

6Ω

3.5Ω

44Hz - 23kHz

37Hz

520Hz / 3.9kHz

47L

870 + (55 x 180) x (300 + 30)

mm 20.5kg each

S5

floor-standing

ABR

3-way

3 x 165mm

2 x 165mm Woven Kevlar

100mm Woven Kevlar

45 x 12mm true ribbon

90dB

40-200W

6Ω

3.2Ω

42Hz - 23kHz

35Hz

570Hz / 3.2kHz

72.4L

(1070 + 55) x 205 x (330 + 30)mm

25.32kg each

SC

centre speaker

vented box

2-way

2 x 100mm Woven Kevlar

45 x 12mm true ribbon

86dB

25-150W

8Ω

4.4Ω

65Hz - 20kHz

60Hz

2.8kHz

12.8L

(160+5) x 400 x (200 + 30)mm

6.3kg each