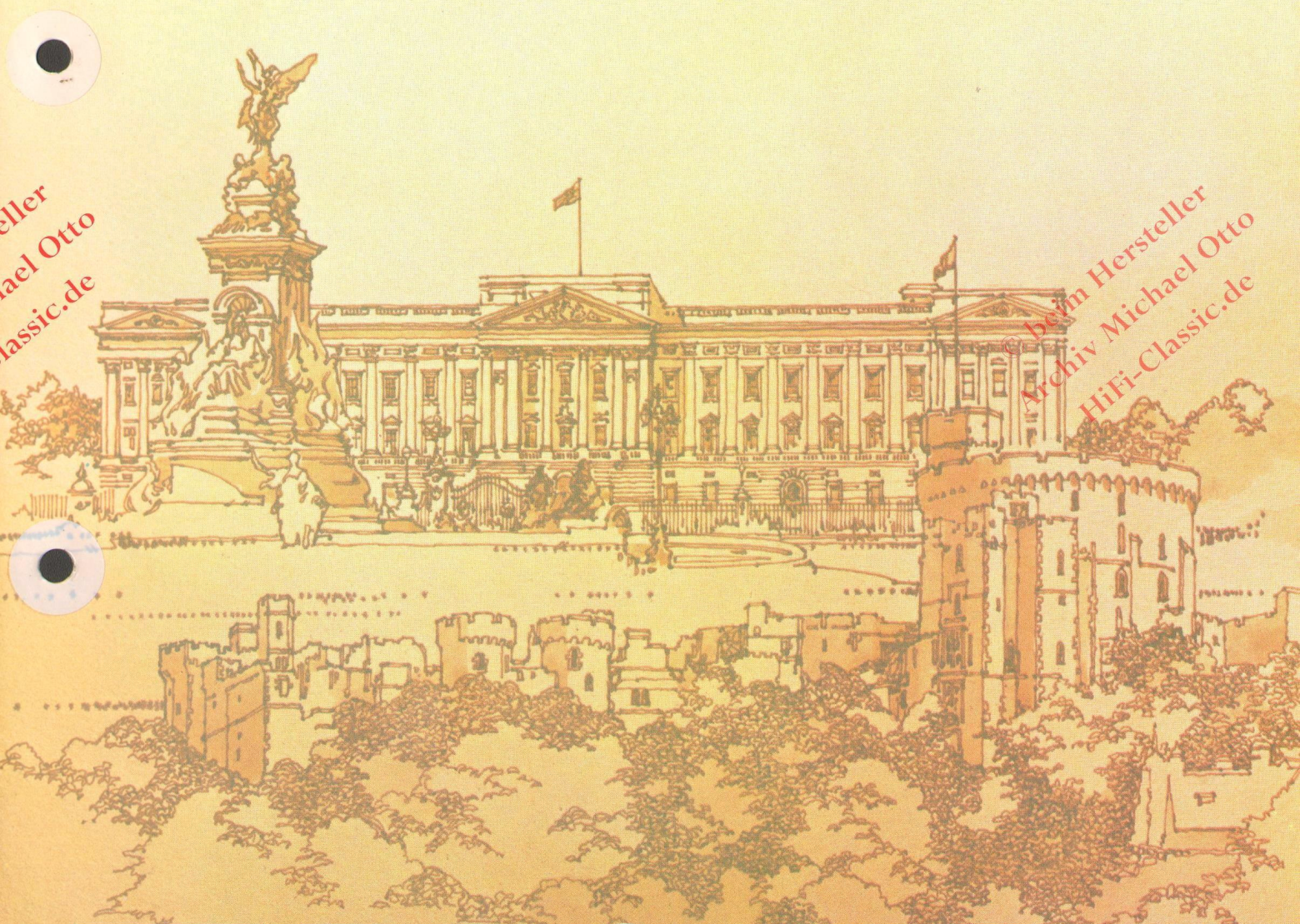


The Buckingham and The Windsor

Two new high fidelity loudspeakers,
meticulously constructed by
craftsmen devoted exclusively to
the art of sound reproduction,
to stand at the forefront of a
world-famous range.



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TANNOY®



The Buckingham and Windsor

The Tannoy group of companies have been making high quality sound reproducing systems for more than fifty years.

The current range of Tannoy high fidelity loudspeakers embodies the results of a unique blend of experience and innovation: experience gained from years of involvement in the manufacture of transducers, innovation in the development of new and very sophisticated drive units and crossover networks. The Tannoy Research and Development engineers have at their disposal a well equipped laboratory, a new anechoic chamber and a superb listening room.

The entire range of Tannoy loudspeakers is assembled, with the same skilled care and attention to detail, in a modern production facility at Coatbridge, in Scotland.

Loudspeaker designers have long sought a sound system that would match the flexibility, dynamic range and acute sensitivity of the human ear.

Tannoy may have come closest to this ideal with two incomparable new loudspeakers – the Buckingham and the Windsor.

The philosophy behind the design of the Buckingham and Windsor loudspeakers has been to select optimum materials for each component and to shape, combine and construct them with meticulous care.

When radiated sound patterns, or waveforms, are transmitted through the air, they cause small time delays, because sound travels at a finite speed. All the component parts of the sound are delayed by an equal amount irrespective of their frequency. Low notes are delayed by the same amount as high notes. Therefore, the ear hears the sound generated from the source through a frequency independent time delay.

In both the Buckingham and the Windsor, the midrange and treble transducers are concentrically mounted within one structural unit, so that they both appear to radiate from one single point in space. In this way, their performance is perceived by the ear to exhibit a frequency independent time delay at any position in the listening area.

The Buckingham and Windsor systems both contain purpose-designed transducer assemblies, engineered by Tannoy. Incoming electrical signals are divided into the respective frequency bands by a complex crossover network which feeds each transducer with amplitude and phase corrected signals. Low loss, high tolerance components are used in the networks to minimise power loss and control the overall response within fine limits.

These features give the Buckingham and Windsor loudspeaker systems unparalleled standards of reproduction in either stereophonic or quadrophonic listening.

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The Buckingham

Power handling capability: 200 Watts continuous integrated programme.

This loudspeaker system divides the audio spectrum into three portions, designated as bass, midrange and treble.

Bass: The Buckingham uses a combination of two bass drivers in tandem, an optimum enclosure volume and a carefully arranged reflex port air mass to achieve high efficiency and a frequency response extending to below audibility. The bass notes reproduced by these transducers are as solid and precise as the originals.

Midrange: The midrange transducer construction incorporates a high energy magnet system, a specially contoured piston area, and a magnetic fluid which substantially increases heat dissipation. These features ensure high efficiency and faithful reproduction without coloration. This transducer is housed in a separate, internal transmission line chamber so that the delicate midrange excursions are protected from the high pressures generated by the bass units.

Treble: The treble transducer consists of four separate parts: a pressure unit which generates the sound energy, a phase compensating throat, an exponential horn assembly and an acoustic lens which increases energy dispersion at high frequencies. The unit combines very high power handling and sensitivity with wide dispersion.

The treble transducer is mounted concentrically with the midrange unit,

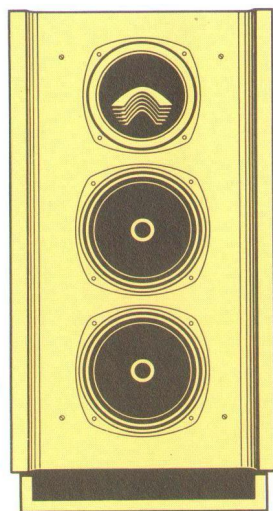
which gives the Buckingham the unique advantages of phase coherence and frequency independent time delay.

Crossover controls: The Buckingham incorporates a highly sophisticated control system which allows the amplitude response to be modified to compensate for a variety of listening room characteristics.

The cabinet: The construction of the Buckingham cabinet is unique. The required properties have been obtained by a combination of high mass for the prevention of sound transmission, sandwich construction of dense compressed wood panels for structural strength, shear force damping techniques for energy absorption within the panels and, finally, a specially developed absorption layer to soak up the higher wavelength sound energy within the internal cabinet volume.

The Buckingham's rich oiled Rosewood or Walnut cabinet is designed to blend beautifully with traditional or contemporary settings and to reflect a visual style as strong and elegant as its sound.

The Buckingham is a hand-crafted loudspeaker made with the same careful attention given to fine musical instruments of the past.



The Windsor

Power handling capability: 120 Watts continuous integrated programme.

The Windsor is a new 3-way loudspeaker system which incorporates the famous Tannoy dual concentric principle.

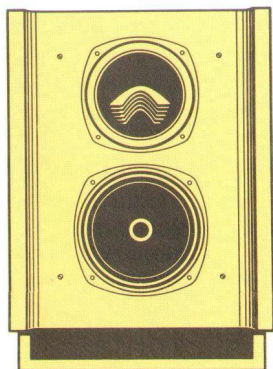
Bass: To achieve smooth bass response extending below audibility, the Windsor uses a high power, extremely robust driver operating in conjunction with an optimum enclosure volume and a carefully arranged reflex port air mass.

Midrange and Treble: These frequencies are generated by a dual concentric transducer. A high power, direct radiating transducer, incorporating a magnetic fluid to increase heat dissipation, is coupled with a concentrically mounted reverse throat, horn-loaded pressure driver. An acoustic lens disperses energy over a wide angle, thus overcoming the directional problems normally associated with horn-loaded pressure drivers.

The midrange and treble drivers are axially located so that the two sound sources are coincident. That is, both transducers appear to radiate from one single point in space. This dual concentric approach ensures that the

stereo imagery produced is exceptionally accurate and stable.

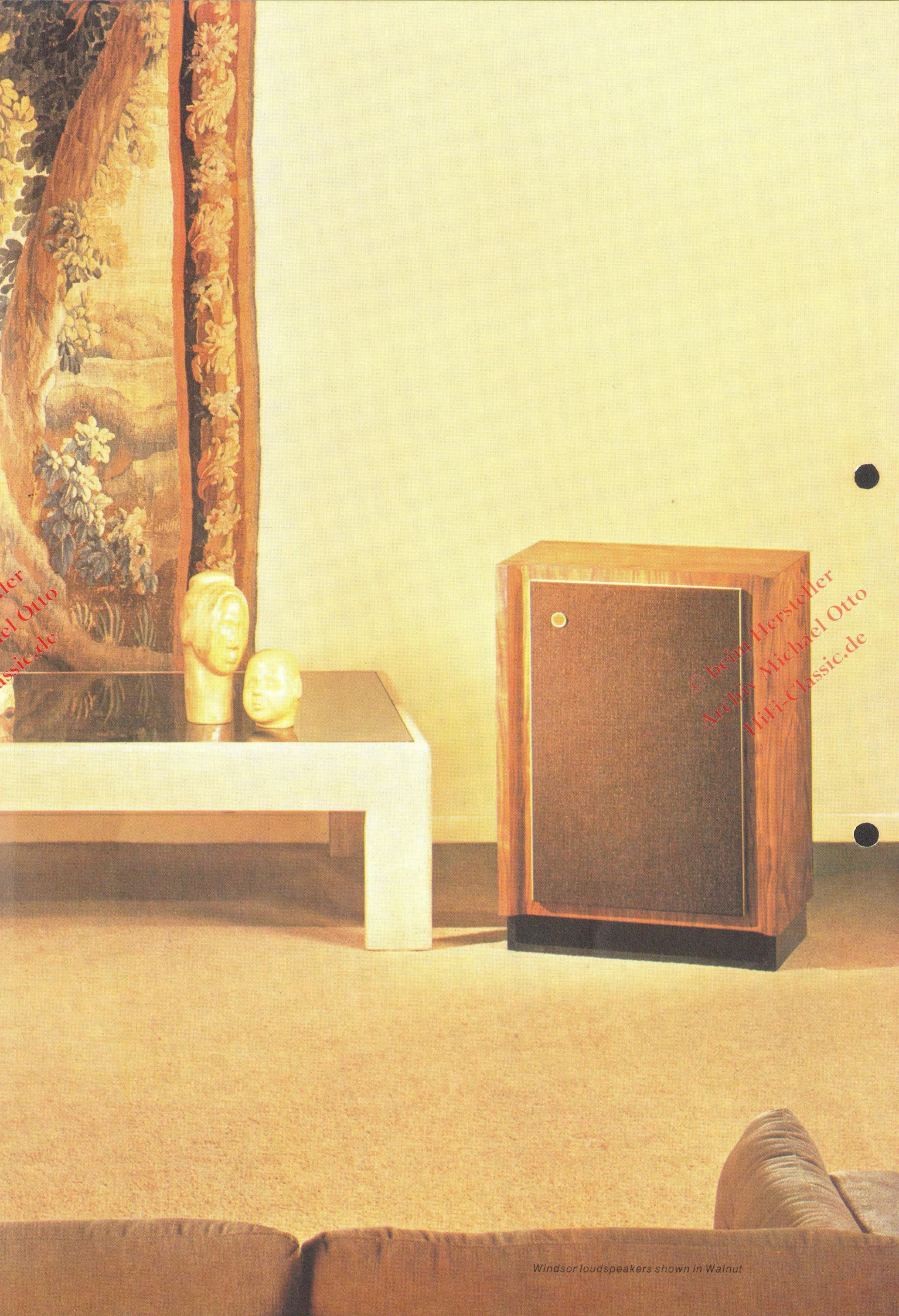
In an age of rapid obsolescence, the Windsor represents a long-term investment that will return many years of unparalleled musical enjoyment.





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Windsor loudspeakers shown in Walnut

Specification

A three way loudspeaker system incorporating four separate transducer assemblies.

Bass 20Hz-350Hz

Two 300mm (12") drivers operating in 170 litre (6 cu.ft) enclosure with reflex port mass of 25 grams.

Midrange 350Hz-3.5kHz

250mm (10") driver operating in 30 litre (1.1 cu.ft) transmission line enclosure, totally enclosed.

Treble 3.5kHz-20kHz

Horn-loaded compression driver with sealed acoustic cavity and slant plate acoustic lens.

Crossover 350Hz and 3.5kHz

20 element network using high stability low loss capacitors and very close tolerance low loss air-cored inductors.

Control System

Separate 10 element control network modifying amplitude response in following way:

150Hz-300Hz+1dB to -3dB in

4 positions

300Hz-3.5kHz+1dB to -4dB in

5 positions

3.5kHz-20kHz+3dB to -3dB in

5 positions

8kHz-20kHz variable roll off rate in

4 positions

Flat anechoic setting clearly indicated.

Dimensions

1175×600×454mm

(3'10"×2'0"×1'6")

Net weight: 96.5kg (212.5 lbs)

Shipping weight: 120.5kg (265 lbs)

Power Handling Capacity

200 Watts continuous integrated

programme

1000 Watts peak programme

150 Watts sine wave 100Hz to 3.5kHz

250 Watts to Din 45573

Sensitivity

1 Watt input produces 92dB SPL at 1 metre

1 Watt input produces 79dB SPL at 15 feet

1 Milliwatt produces 43dB SPL at 30 feet

200 Watts continuous pink noise produces 115dB SPL at 1 metre.

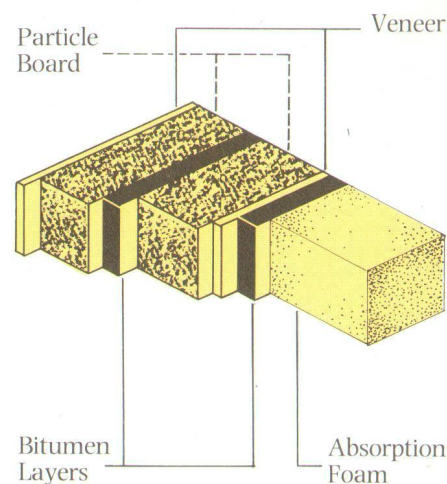
Power Amplifier Requirements

Damping Factor: 50 or greater for maximally flat bass response.

Input Power: 10 to 1000 Watts depending on programme material, room size, and required dynamic range.

Cabinet Construction

Panel construction detail:



Specification

A new three way loudspeaker system incorporating three separate transducer assemblies.

Bass 20Hz-350Hz

A 300mm (12") driver operating in a 120 litre (4 cu.ft) enclosure with reflex port mass of 17 grams.

Midrange 350Hz-3.5kHz

A 250mm (10") driver operating in a 26 litre (0.9 cu.ft) transmission line enclosure, totally enclosed.

Treble 3.5kHz-20kHz

Horn-loaded compression driver with sealed rear acoustic cavity and slant plate acoustic lens.

The midrange and treble drivers are mounted concentrically to provide an acoustic virtual point source.

Crossover 350Hz and 3.5kHz

14 element network using high stability low loss capacitors and close tolerance low loss air-cored inductors.

Control System

A 5 element control network modifies the amplitude response in the treble region as follows:

3.5kHz-20kHz+3dB to -3dB in

5 positions

8kHz-20kHz variable roll off rate in

4 positions

Flat anechoic setting clearly indicated.

Dimensions

815×580×400mm (32"×22 $\frac{7}{8}$ "×15 $\frac{3}{4}$ ")

Net weight: 50kg (110 lbs)

Shipping weight: 65kg (143 lbs)

Power Handling Capacity

120 Watts continuous integrated programme

500 Watts peak programme

75 Watts sine wave 100Hz to 3.5kHz

120 Watts to DIN 45573

Sensitivity

1 Watt input produces 91dB SPL at 1 metre

1 Watt input produces 78dB SPL at 15 feet

1 Milliwatt produces 42dB SPL at 30 feet

120 Watts continuous pink noise produces 112dB SPL at 1 metre

Power Amplifier Requirements

Damping factor: 30 or greater for maximally flat bass response

Input power: 10 to 500 Watts depending on programme material, room size and required dynamic range.

For further information on these and other Tannoy high fidelity loudspeakers and the name of your nearest dealer, please write to your Tannoy distributor or to:

Tannoy Products Limited
St. John's Road Tylers Green
High Wycombe Bucks
England HP10 8HR