

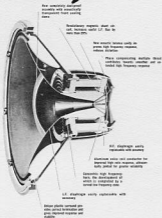
**TANNOY**

*sound practitioners*



PRODUCTS FOR THE HIGH FIDELITY REPRODUCTION OF SOUND



**TANNOY***Monitor***DUAL CONCENTRIC****SPECIFICATIONS**

Frequency response  
 Power Distribution for 50-100 Watt  
 Power Handling Capacity  
 Impedance Via Crossover Network  
 Flux Ratio L.F. Cone  
 Flux Ratio H.F. Cone  
 H.F. Voice Coil Diameter  
 L.F. Voice Coil Diameter  
 Intermodulation Products  
 Back Resonance  
 Magnet Assembly Weight  
 Magnet Material  
 Crossover Frequency  
 Overall Diameter of Frame  
 Overall Depth  
 Ring Width P.C.B.  
 Weight: Crossover network in separate unit  
 Finish: Cover and Frame  
 Magnet Assembly Parts

**"TEN"**

25-20,000 p.p.s.  
 -20db at 10,000 p.p.s.  
 30 watts\*  
 16 ohms  
 10,000 gauss  
 10,000 gauss  
 2" x 2"  
 less than 2%  
 27 p.p.s.  
 614 lb.  
 Tantalum C  
 1,000 p.p.s.  
 11 1/2"  
 6 1/2"  
 1 1/2"  
 9 lb.  
 aluminium 2 1/2 lb.  
 hard enamel  
 Cadmium plate

**"TWELVE"**

15-20,000 p.p.s.  
 -20db at 10,000 p.p.s.  
 30 watts\*  
 16 ohms  
 11,500 gauss  
 15,000 gauss  
 2" x 2"  
 less than 2%  
 28 p.p.s.  
 710 lb.  
 Tantalum C  
 1,000 p.p.s.  
 12 1/2"  
 7"  
 1 1/2"  
 10 lb.  
 aluminium 2 1/2 lb.  
 hard enamel  
 Cadmium plate

**"FIFTEEN"**

13-20,000 p.p.s.  
 -20db at 10,000 p.p.s.  
 30 watts\*  
 16 ohms  
 13,000 gauss  
 18,000 gauss  
 2" x 2"  
 less than 2%  
 32 p.p.s.  
 8"  
 10 lb.  
 aluminium 3 lb.  
 hard enamel  
 Cadmium plate

\*Use cone in field with a treble control.

\*Depending on type of enclosure.

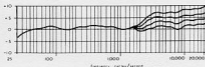
This twin loudspeaker system consists of a direct radiator low frequency unit mounted concentrically with a horn-loaded high frequency unit. The voice coils of both loudspeaker systems are fed through a specially designed crossover network. The frequency response of both units is intrinsically level and the wide frequency range is not obtained by trick effects, such as cone break-up or uncontrolled resonance. The design of the low frequency cone, which forms the final section of the high frequency horn, is such that even distribution of high frequencies is obtained over a wide angle and in order that the low frequency diaphragm shall move as a true piston, it is moulded by a special process and the surround is treated with a stable lossy resin to prevent subsidiary resonance.

The high frequency unit is of particularly robust construction to ensure adequate power handling capacity and to enable it to take over from the L.F. unit at a sufficiently low frequency to avoid the latter's running into break-up troubles. The diaphragm is a light alloy pressing located to within very close limits on the backplate by means of a turned recess. An aluminum voice coil conductor is used in order to preserve the correct mass relationship and phase matching arrangement to ensure a level and extended high frequency response. The first section of the H.F. horn is formed from the center pole and is continued by the L.F. cone.

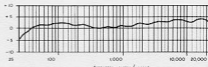
In the design of this loudspeaker great care has been taken to ensure that the entire system is truly aperiodic which, together with its wide frequency range, results in a standard of reproduction far in advance of that obtained with any other system.

It is worth noting that all of the Tannoy Monitor Dual Concentrics come in the category of "efficient" speaker systems, any one of which can be driven with amplifiers having an output as low as 15-Watts per channel.

This loudspeaker is the culmination of over forty years' continuous research in the field of high quality transducers, and its adoption as a listening standard by broadcasting and recording companies throughout the world is an indication of the supremacy of its performance.

**DUAL CONCENTRIC 10"**

Typical Response of 10" Dual Concentric in Baffle Cabinet Viewing Range of Frequency Adjustment.

**DUAL CONCENTRIC 12" AND 15"**

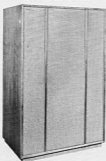
Typical response of 12" or 15" Dual-Concentric in Baffle Cabinet.

# TANNOY HORN LOADED EXPANDING SOUND SOURCES

This unique enclosure embodies all of the well-known advantages of horn loading, e.g., excellent bass radiation and transient response, but suffers from none of the special distribution defects associated with conventional horns.

The effective source size of the system varies with frequency below 1000 c.p.s. the L.F. diaphragm of the Dual Concentric is horn loaded both front and rear; from 350 c.p.s.—1,000 c.p.s. the front loading only is effective, thus giving a reduction in apparent source size. Above 1,000 c.p.s. the horn loaded high frequency unit integral with the Dual Concentric commences to radiate, giving all of the advantages of a small non-directional source. The result of this entirely new form of horn loading is that while large orchestral and choral works have a sense of spaciousness and breadth, chamber music and solo vocal music possess that intimacy very necessary for their full enjoyment.

## AUTOGRAPH



THE  
*A.R.F.*

Guy R. Fountain has given his initials to a loudspeaker system which, since its introduction, has been acclaimed by musicians throughout the country for its beauty of reproduction.

The 15" Monitor Dual Concentric loudspeaker forms the heart of this system, while the GRF enclosure provides the expanding sound source. The effect of this as has been described previously, is that the wave front, varying in frequency, gives an outstanding illusion of realism to both solo and orchestral music. In addition, the system has all of the well-known advantages of horn loading: rich sonority of bass, inherently non-resonant, excellent transient response, plus the sweep of the 15" Monitor's high frequencies, smooth and non-directional.

The low frequency diaphragm of the 15" Dual Concentric is rear horn loaded below 350 cycles, at which point the acoustical cross-over takes place, and frontal radiation is obtained from this frequency up to 1,000 cycles; above this the non-directional horn loaded high frequency unit, which forms an integral part of the Dual Concentric, takes over.

As a result of this form of horn loading, the breadth and dynamic range of a large orchestra can be fully enjoyed; because of its excellent instrument definition realistic presence is provided to the satisfaction of the most fastidious listener. And of course the solo instrument, or voice, retains its delightful intimacy.

## THE 'AUTOGRAPH PROFESSIONAL'

This system has the same horn development and characteristics as the 'Autograph', excepting that where the latter houses one 15" Monitor Dual Concentric loudspeaker, the 'Autograph Professional' embodies two 15" Monitor Dual Concentrics. This requires a change only in the front loading cavity, which is so arranged that the two speakers are seated within the enclosure to ensure a completely non-directional high frequency source.

Frequency Response: 30-20,000 cycles

Efficiency: 10%

Bass Horn Development: to 30 c.p.s.

Size: Height: 60"  
Width: 29"  
Depth: 24"

Impedance: 'Autograph' 16 Ohms  
'Autograph Professional' 8 Ohms

Power Handling Capacity: 'Autograph' 50 Watts  
'Autograph Professional' 100 Watts  
\*Available 35-Ohms slight  
omega change  
Finish: Oiled Walnut

### SPECIFICATIONS

Frequency Response: 35-20,000 c.p.s.  
Power Handling Capacity: 50 Watts

Efficiency: 8%

Bass Horn Development: Effective loading down to 35 c.p.s.

Size: Height: 42", Depth: 17", Width: 23 1/2"

Finish: Oiled Walnut

NOTE: On special order the GRF enclosure can be supplied in pairs for use horizontally to match modern "to-by" styling.

## THE *Cornetta*

The "Cornetta" refers to a completely horn loaded enclosure designed around the Tannoy 10" Monitor Dual Concentric loudspeaker. It follows the same basic loading principles as does the famous 'GRF' expanding sound source for the 15" Monitor Dual Concentric. The advantage, however, of the "Cornetta" is that its physical size is considerably less, making it adaptable for use where space is a problem, and yet at the same time, providing the full range of extended response and inherent qualities of the larger system.

Like all the Monitor Dual Concentric range, it is an efficient system and will operate on as little as 15 Watts per channel.



## THE *A.R.F.* PROFESSIONAL

This system has been designed with the professional user in mind, who is limited in the amount of space he has available but still desires to approach the ultimate performance provided by the Autograph. Being physically larger than the GRF, it has been possible to incorporate a more complicated horn development, similar to that of the Autograph compound expanding sound source, using the 15" Monitor Dual Concentric as the transducer.

Because of its improved loading at the extreme end of the response, its greater horn mouth area, and its fundamental design, the resultant system provides extensive depth of sound and special distribution on large orchestral works, yet still retains the personality of the soloist.



### SPECIFICATIONS

Frequency Response: 35-20,000 c.p.s.

Power Handling Capacity: 20 Watts

Efficiency: 5% approx.

Bass Horn Development: Effective loading down to 30 c.p.s.

Size: Height: 24 1/2"  
Depth: 16 1/4"  
Width: 13 1/2"

Finish: Oiled Walnut

35-20,000 c.p.s.

20 Watts

5% approx.

Effective loading down to 30 c.p.s.

Height: 24 1/2"  
Depth: 16 1/4"  
Width: 13 1/2"

Oiled Walnut

### SPECIFICATIONS

Frequency Response: 35-20,000 c.p.s.

Power Handling Capacity: 50 Watts

Efficiency: 10%

Bass Horn Development: Effective loading down to 30 c.p.s.

Size: Height: 52", Depth: 22", Width: 32"

Finish: Oiled Walnut

35-20,000 c.p.s.

50 Watts

10%

Effective loading down to 30 c.p.s.

Height: 52", Depth: 22", Width: 32"

Oiled Walnut

# TANNOY STEREO ENCLOSURES



## SPECIFICATIONS

Size Height: 31 3/4"  
Width: 23 1/2"  
Depth: 16"  
Finish Oiled Walnut

### 'BELVEDERE SENIOR'

The Belvedere Senior enclosure has been designed for the 15" Tannoy Monitor Dual Concentric loudspeaker for stereophonic application. It is solidly constructed, and embodies the bass reflex principle using a throated port, providing maximum performance for minimum physical size.

The complete system with the 15" Dual Concentric provides excellent frequency response throughout the audio spectrum, with clean, sharp, transients, and an overall integrated sound source, particularly desirable in stereophonic reproduction.

This enclosure can also be supplied with the baffles modified to enable it to be used as a bass reflex enclosure for the 12" Dual Concentric, when an housed this speaker would be operating under optimum loading requirements.

## SPECIFICATIONS

Size Height: 42"  
Width: 23 1/2"  
Depth: 15"  
Finish Oiled Walnut



### 'THE YORK'

This cabinet has been designed to provide optimum loading for the 15" Monitor Dual Concentric on the bass reflex principle, and in view of its adequate capacity, ensures the widest possible response throughout the spectrum. The response curve shown previously for the 15" speaker in a bass reflex is typical of this system.

The York is of most pleasing appearance and has been produced especially for those who have space available for a larger system and who desire to obtain the full response of which the 15" Dual Concentric is capable. Although it can handle considerable power, it also has the ability to function at low levels without losing its feeling of "presence".



### 'DALTON'

The Dalton is a petite enclosure directed towards the lowboy styling of modern furniture. It has been designed so that it can be used with either the Tannoy 12" Monitor Dual Concentric, or alternatively the 10" unit.

This cabinet is a bass reflex, using the throated port principle and ensures a wide frequency response with a clean, solid, non-resonant bass; while being acoustically correct, the enclosure itself has a most pleasing appearance.

## SPECIFICATIONS

Size Height: 23 1/2"  
Width: 22"  
Depth: 15"  
Finish Oiled Walnut



### 'CHATSWORTH'

The Chatsworth is a handsomely finished and acoustically correct cabinet engineered to complement the Tannoy 12" Monitor Dual Concentric, providing an integrated sound source particularly directed to stereophonic reproduction.

The cabinet is a throated port bass reflex, designed to give maximum performance for minimum size, providing extended bass and excellent transient response.

Since all sides are finished, it can be used either horizontally or vertically, for installation on a bookshelf or free-standing on the floor.

This enclosure can also be used to advantage to house the 10" Monitor Dual Concentric, and under these conditions this unit will approach optimum loading.

## SPECIFICATIONS

Size Height: 18"  
Width: 26"  
Depth: 17"  
Finish Oiled Walnut



### 'CADET'

The Cadet has been designed to work in conjunction with the Tannoy 10" Monitor Dual Concentric, for bookshelf applications. Having a capacity of approximately 1 1/2 cubic feet, it is solidly constructed and acoustically engineered to provide adequate loading for this unit. Despite its small physical size, it is capable of producing a large sound source when used for stereophonic reproduction.

This system has a wide frequency response, excellent transients, and a clean bass. As in the case of all Tannoy systems, it is efficient and can be driven with as little as 15 Watts per channel. The cabinet is finished on all four sides so that it may be used either horizontally or vertically.

## SPECIFICATIONS

Size Height: 13 1/2"  
Width: 23 1/2"  
Depth: 11"  
Finish Oiled Walnut

# TANNOY

THE TRADEMARK

Tannoy is the registered trademark and design of Tannoy Limited, London, England.

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