

TANNOY®



prestige series
LOUDSPEAKERS

Tannoy Dual Concentric Loudspeaker systems are the choice of discriminating music lovers the world over. Renowned for exceptional accuracy and naturalness, Tannoy Loudspeakers are chosen by recording and broadcasting professionals. Many leading studios worldwide have professional monitor systems developed by Tannoy design engineers. Many favourite artists choose Tannoy equipped studios.

QUALITY PERFORMANCE

Tannoy is proud to field one of the strongest audio engineering teams in the business. Their design skills have won for Tannoy many outstanding critical reviews, Best Buy and Recommended awards. Tannoy takes an all-encompassing approach to loudspeaker design. Musical excellence is first designed in. High production values and tight quality control are then applied to keep it in. Our cabinets in selected hardwoods are hand finished to a traditional craftsman's standard that is unsurpassed.

Whatever the style of music or its source, digital or analogue, CD, LP or tape, Tannoy loudspeakers perform to a standard unequalled by other products.

INNOVATION AND EXCELLENCE

Tannoy is the only manufacturer to have been awarded Japan's prestigious 'Golden Sound' award three times. That degree of recognition speaks for itself. Japanese music enthusiasts have long recognised the excellence of our loudspeakers. The Tannoy following reaches far beyond Japan to music lovers seeking excellence all over the world.

A HOUSEHOLD NAME

Some dictionaries refer to 'Tannoy' as the generic term for public address systems. The company has been designing and building high quality loudspeaker systems for over 60 years. The history of the company goes back to the early days of broadcasting in London. Radio sets needed DC power that had to be supplied by batteries. These lead acid radio batteries needed regular recharging.



Cut-away of Westminister Royal enclosure

Guy R Fountain was an engineer who owned a London garage. Many commercial garages at the time made recharging radio batteries a profitable side line.

AN ENTERPRISING BEGINNING

In 1926, Guy Fountain perfected a new type of electrical rectifier with the aim of designing a charger more suitable for home use. His rectifier consisted of two dissimilar metals, Tantalum and a Lead alloy, held in a special electrolyte solution. So successful was this invention

that Guy Fountain founded a British Company called Tannoy (a contraction of the words 'Tantalum' and 'Alloy'). Not long after Guy's first Tannoy factory was established he began experiments with moving coil loudspeakers using DC energised magnets. In 1930 the company won a contract to supply the Bertram Mills Circus with a sound reinforcement system. Tannoy never looked back.

RESEARCH, DEVELOPMENT AND PROGRESS

A discrete two-way loudspeaker system followed in 1933 and shortly after a range of microphones and loudspeakers capable of high power handling. Later Tannoy equipment was installed both in the House of Commons and in major United Nations buildings. Tannoy has always been at the front of the communications revolution, developing its own equipment and production technology. The company has built a fund of knowledge and experience. This is invaluable in the development of loudspeakers for a truly wide range of applications.

Tannoy established itself in the 1940s and 50s as the leading manufacturer of recording studio monitors outside the USA. Tannoy had by now also become well-known for its high quality loudspeakers supplying the fast growing audio and hi-fi markets.

UNPRECEDENTED ACCURACY

The now famous Tannoy Dual Concentric principle was created and developed under Guy Fountain's direction around 1950. It is highly regarded by music enthusiasts, and in recording and broadcast studios because of its unique

properties in faithfully reproducing sound to an unusually high standard. Our design philosophy is to produce loudspeakers with a level of performance beyond the most exacting specifications of contemporary source equipment.

Loudspeaker design is no longer 'mystical'. Computers can model designs and predict results. Computer test equipment is used to pin-point problems with cabinets or drive units; anechoic chambers help in producing accurate measurements. Computer aided design (CAD) and advanced custom-built test equipment are used extensively at Tannoy. However, we always remember that listening tests must be the final judge.

THE CONTROL OF MUSICAL EXCELLENCE

Approved by HM Government as a supplier meeting the stringent AQAP-4 standard, Tannoy follows a policy of stringent quality control procedures using sophisticated measurement facilities. Strict quality control is more easily achieved because all the loudspeakers are built in-house at the Tannoy factory in Scotland. All drive units are designed and manufactured by Tannoy. All incoming parts are thoroughly tested to ensure that they are as specified. Not only is all data computerised but our custom-built test equipment ensures every loudspeaker meets or exceeds our exacting standards.

THE TANNOY DUAL CONCENTRIC DRIVE UNIT

The ideal drive unit is one that can effectively reproduce the entire audio spectrum from deep bass to high treble.

Unfortunately, such a drive unit does not exist. Two-way, three-way and multiple driver loudspeaker systems are adopted as working compromises. The fundamental drawback of covering the full audio spectrum with two drivers—one for mid and bass frequencies and one for treble—in a conventional two-way loudspeaker is simple. The high-frequency (HF) and low-frequency (LF) signals come from different places.

The offending time delay is not large—in the order of tens of thousandths of a second. However, this delay is enough to produce a distorted and unnatural sound—no matter how good the individual drive units. The human ear becomes confused. You 'hear' the loudspeakers but you cannot reconstruct a convincing stereo image of the original performance.

APPROACHING THE IDEAL

This is not so with the ideal drive unit. Nor with the Tannoy Dual Concentric, where the complete audio band is reproduced from a single point in space. The Tannoy Dual Concentric has three fundamental advantages over conventional discrete systems: it is a coincident acoustic point source with a very wide dynamic range potential and constant symmetrical directivity.

The HF unit is mounted behind, and concentrically with, the LF unit. High frequency sound radiates from the centre of the LF unit. By careful mechanical and crossover network design the virtual acoustic sources of the HF and LF units can be made to occupy the same point on the axis. Therefore the total sound appears to emanate from a single point source located slightly behind the drive unit. This



Hard Wired crossovers and high quality switch blocks on all Prestige models

gives the Dual Concentric driver a coincident acoustic point source, permitting a full and accurate stereo image to be generated. Realism in sound reproduction is enhanced as the drive unit both preserves the harmonic structure of complex sounds and provides a linear phase response.

There are other significant advantages in having the HF unit within the LF section. The HF unit does not obstruct the LF unit in any way (a unique feature when compared with other so-called coaxial systems). Polar dispersion of sound is symmetrical in both horizontal and vertical planes giving constant symmetrical directivity. The advantage here is the constant integration of room energy. A Dual Concentric loudspeaker is less critical of room boundary proximity. Off-axis listeners benefit from the lack of a stereo 'sweet spot' and the maintenance of the full midrange energy spectrum off-axis.

Tannoy Dual Concentrics can handle the widest dynamic range material faithfully. Presenting an undemanding current requirement to the driving amplifier the Dual Concentric has a fast rise time and is capable of high sound pressure levels. The thermal mass and power dissipation of the design guarantee low acoustic compression at high power outputs adding to the realism and dynamic excitement of the sound produced.

THE
Stirling TW
LOUDSPEAKER



the Stirling TW is a compact high performance loudspeaker based around Tannoy's unique 10-inch ribbon wound Tulip Waveguide (TW) twin-magnet Dual Concentric driver built into a rigid high pressure die-cast frame. This loudspeaker system excels with its high sensitivity, power handling and pure musical pleasure.

The cabinet features selected walnut veneers, hand-laid cork and solid walnut edgings. A lock and key firmly hold in place the oatmeal effect cloth grille.

Signal handling is through gold-plated terminals with captive link Bi-Wire/Normal wiring and a Hard-Wired time compensat-

ed crossover network. Van den Hul wiring is used throughout. A detailed sound with precision stereo is assured.

The Stirling TW provides both low frequency (below 100 Hz) and high frequency (above 1.2 kHz) adjustment. High frequency energy tailoring is through a high current gold-plated switch block. Low frequency adjustment is by the Tannoy Variable Distributed Port System (VDPS). These features mean that the Stirling TW can offer complete enjoyment of any type of music in virtually any listening room.

Acoustically and aesthetically excellent stands are available to enhance enjoyment of the Stirling TW.



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THE
Edinburgh TW
LOUDSPEAKER



The Tannoy Edinburgh TW can be enjoyed as a charming piece of furniture—its hidden musical talents called upon when required. The hand-laid cork, solid walnut edgings and walnut veneers—combined with 18-mm particle board cabinet, rigidly cross braced and heavily internally damped—results in a loudspeaker as striking to look at as it is exciting to hear.

Behind the classic 'lock and key' secured grille is the Tulip Waveguide edition of the famous 12-inch Tannoy ribbon-wound twin-magnet Dual Concentric drive unit. This is driven through gold-plated loudspeaker termi-

nals and captive link Bi-Wire/Normal wiring and a Hard-Wired time compensated crossover network. Van den Hul wiring is used throughout.

Superb bass reproduction is achieved by means of a distributed port reflex system. This gives the Edinburgh TW exceptional transient performance with a smooth low frequency output.

Treble output can be adjusted by means of two high current switch blocks—one for treble energy and one for treble roll off. These permit the Edinburgh TW to be acoustically 'tailored' to suit all environments.



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THE
G R F Memory TW
LOUDSPEAKER



The Guy R Fountain Memory TW is a tribute to Tannoy's founder, Guy R Fountain. This loudspeaker presents music in a thoroughly believable and enjoyable way. It is based around the famous 15-inch Tannoy Dual Concentric driver, now with twin-magnet assembly and computer designed Tulip Waveguide for improved high frequency performance. Signal handling is by gold-plated terminals with captive link Bi-Wire/Normal wiring and a Hard-Wired time compensated crossover network. The Guy R Fountain Memory TW offers high frequency energy tailoring. Both treble energy and roll off frequency can be

adjusted by the two high-current gold-plated switch blocks on the front baffle. Van den Hul wiring is used throughout. The classic cabinet design loads the driver with quadruple ducted ports for outstanding bass extension and clarity. Removing the oatmeal effect cloth grille, using the scrolled key, reveals a hand-laid cork baffle. Grille and baffle are beautifully matched to the real walnut veneers and solid walnut edgings. The combination of a traditional craft finish and modern driver technology is a design of which we feel Guy Fountain would certainly have approved. The Guy R Fountain Memory TW loudspeaker system is capable of the finest

audio reproduction and will remain both acoustically and visually pleasing for many years to come.



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THE
Canterbury 12
LOUDSPEAKER



The Canterbury 12 is a truly special loudspeaker made only to order with certification and personalised nameplate. Both the Canterbury 12 and the larger Canterbury 15 use the classic Alcomax 3 high-energy magnet versions of the famous Tannoy Dual Concentric driver in either 12-inch or 15-inch chassis.

Alcomax 3 is an unusually high energy permanent magnet. The special iron/nickel alloy is doped with cobalt, aluminium and other rare metals to produce a magnetic material with very special properties. Alcomax 3 has a high remanent magnetism and energy product. In other words, it magnetises to a

high level and retains that unusual degree of magnetisation. Alcomax 3 is also an electrical conductor. These properties give the Dual Concentric drive unit using an Alcomax 3 magnet an exceptionally clean transient response and increased sensitivity.

The Canterbury 12 employs a high performance 12-inch Dual Concentric driver in a braced birch-ply cabinet. Burr walnut veneers and solid walnut mouldings are used to enhance both structure and beauty on the cabinet.

Van den Hul Bi-Wiring is used throughout. High frequency energy can be tailored through high current gold-plated switch blocks with controls for both tre-

ble energy and roll off. Low frequency adjustment is through the Tannoy Variable Distributed Port System (VDPS).



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THE
Canterbury 15
LOUDSPEAKER



the Canterbury 15, like its smaller brother, employs an Alcomax 3 version of the classic Tannoy Dual Concentric driver. For this drive unit a substantial high pressure die-cast 15-inch chassis is used.

This high-performance drive unit is installed in a cabinet where 'attention to detail' is the byword. Birch ply, from Finland, is used for both the carcass construction and its substantial bracing. The cabinet is then finished in selected burr walnut wood veneers and completed with rich mouldings in solid walnut.

Gold-plated terminals are employed and give the option of Bi-Wiring. Van den Hul cable is used throughout the loud-

speaker. Along with the Hard-Wired crossover network and acoustic source aligning system this top-quality cable ensures minimal signal loss. Both treble level and roll off can be adjusted by means of high-current switch blocks. Low frequency output can be tuned to suit any room and personal taste using Tannoy's unique Variable Distributed Port System.

The Canterbury 12 and Canterbury 15 loudspeakers are made to special order only. They are supplied with a certificate of ownership and a polished brass nameplate engraved with the name of your choice. Both are destined to become true heirlooms.



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THE
Westminster Royal
LOUDSPEAKER



The Westminster Royal is Tannoy's crowning achievement. This loudspeaker offers a compound horn-loaded enclosure driven by classic Dual Concentric technology. The Westminster Royal sets the standard for low frequency, dynamics and 'presence' that no other system can match. This horn-loaded classic pushes back the limits of loudspeaker design, while remaining a magnificent and timeless piece of furniture.

Based around the Alcomax 3 version of the famous 15-inch Tannoy Dual Concentric the Westminster Royal now features the benefits of signal handling

by gold-plated terminals with Bi-Wire/Normal wiring and a Hard-Wired time compensated crossover network. This Alcomax 3 magnet system gives the Dual Concentric an exceptional transient response and increased sensitivity.

The substantial 530 litre cabinet—clad in fine walnut veneers with solid walnut edgings—conceals a complex horn loading system that gives greatly increased efficiency and a wavefront area approaching that from real instruments. The Westminster Royal is effortlessly capable of the realistic reproduction of truly low frequencies and the widest dynamic range. Van den Hul wiring is used throughout.

Removal of the wood-framed grille with its specially woven cloth, using the ornate scrolled key, reveals an engraved brass plate behind which are the treble energy and roll off high current switches. The Tannoy Westminster Royal is one of only a few loudspeakers capable of reproducing the dramatic real-world dynamic range of musical instruments without apparent effort.



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specifications

	STIRLING TW	EDINBURGH TW	GRF MEMORY TW	WESTMINSTER TW	CANTERBURY 12	CANTERBURY 15	WESTMINSTER ROYAL
RECOMMENDED AMPLIFIER POWER	30 to 150 watt/channel	50 to 180 watt/channel	50 to 200 watt/channel	50 to 200 watt/channel	50 to 200 watt/channel	50 to 250 watt/channel	50 to 200 watt/channel
POWER RATING	100 watt RMS 250 watt peak	110 watt RMS 380 watt peak	125 watt RMS 520 watt peak	125 watt RMS 520 watt peak	110 watt RMS 450 watt peak	125 watt RMS 550 watt peak	120 watt RMS 500 watt peak
SENSITIVITY FOR 2.83 VOLT AT 1 METRE	93 dB	95 dB	95 dB	99 dB	94 dB	96 dB	99 dB
MAXIMUM SPL	113 dB at 1 m for 100 watt RMS 117 dB at 1 m for 250 watt peak	115 dB at 1 m for 110 watt RMS 120 dB at 1 m for 380 watt peak	116 dB at 1 m for 125 watt RMS 122 dB at 1 m for 520 watt peak	120 dB at 1 m for 125 watt RMS 126 dB at 1 m for 520 watt peak	114 dB at 1 m for 110 watt RMS 121 dB at 1 m for 450 watt peak	117 dB at 1 m for 125 watt RMS 124 dB at 1 m for 550 watt peak	120 dB at 1 m for 120 watt RMS 126 dB at 1 m for 500 watt peak
NOMINAL IMPEDANCE	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm
MINIMUM IMPEDANCE	5.5 ohm	5.5 ohm	5.5 ohm	5.5 ohm	5.5 ohm	5.5 ohm	5.5 ohm
FREQUENCY RESPONSE ± 3 dB	35 Hz – 25 kHz (port mid position)	30 Hz – 25 kHz	29 Hz – 25 kHz	18 Hz – 25 kHz	33 Hz – 22 kHz	28 Hz – 22 kHz	18 Hz – 22 kHz
CROSSOVER FREQUENCIES	1.3 kHz	1.2 kHz	1.0 kHz	300 Hz acoustical 1.0 kHz electrical	1.6 kHz	1.1 kHz	300 Hz acoustical 1.0 kHz electrical
CROSSOVER CONTROL	± 3 dB over 1.3 kHz to 25 kHz shelving	± 3 dB over 1.2 kHz to 25 kHz shelving +2 dB to -6 dB per octave over 5 kHz to 20 kHz slope	± 3 dB over 1.0 kHz to 25 kHz shelving +2 dB to -6 dB per octave over 5 kHz to 25 kHz slope	± 3 dB over 1 kHz to 25 kHz shelving +2 dB to -6 dB per octave over 5 kHz to 25 kHz slope	± 3 dB 2.5 kHz to 22 kHz shelving +3 dB to -6 dB per octave over 3.7 kHz to 22 kHz slope	± 3 dB over 2.3 kHz to 22 kHz shelving +3 dB to -6 dB per octave over 3.4 kHz to 22 kHz slope	± 3 dB over 1 kHz to 20 kHz shelving +3 dB to -6 dB per octave over 5 kHz to 20 kHz slope
CROSSOVER TYPE	1st order LF, 1st order HF, Bi-Wired, Hard-Wired, passive, low-loss, time compensated Type 1134	1st order LF, 1st order HF, Bi-Wired, Hard-Wired, passive, low-loss, time compensated Type 1133	1st order LF, 1st order HF, Bi-Wired, Hard-Wired, passive, low-loss, time compensated Type 1132	1st order LF, 1st order HF, Bi-Wired, Hard-Wired, passive, low-loss, time compensated Type 1131	Bi-Wired, Hard-Wired, passive, low-loss, time and impedance compensated Type 1090	Bi-Wired, Hard-Wired, passive, low-loss, time and impedance compensated Type 1091	Bi-Wired, Hard-Wired, passive, low-loss, time compensated Type 1109
DRIVER TYPE	10-inch Dual Concentric High Compliance Type 2598	12-inch Dual Concentric High Compliance Type 3158	15-inch Dual Concentric High Compliance Type 3840	15-inch Dual Concentric High Compliance Type 3858	12-inch Dual Concentric High Compliance Type 3179	15-inch Dual Concentric High Compliance Type 3889	15-inch Dual Concentric High Compliance Type 3889/W
ENCLOSURE TYPE	Dual Variable Distributed Port System	Distributed port reflex	Quadruple ducted port system	Compound horn	Dual Variable Distributed Port System	Dual Variable Distributed Port System	Compound horn
ENCLOSURE VOLUME	68 litre	200 litre	220 litre	521 litre	140 litre	235 litre	530 litre
ENCLOSURE (HxWxD)	700x486x310 mm	1020x660x420 mm	1100x800x480 mm	1290x1030x636 mm	900x580x430 mm	1100x680x480 mm	1395x980x560 mm
ENCLOSURE WEIGHT	22 kg complete	44 kg complete	62 kg complete	116 kg complete	47 kg complete	63 kg complete	138 kg complete
PACKED DIMENSIONS (HxWxD)	850x525x380 mm	1179x708x468 mm	1280x830x580 mm	1490x1080x680 mm	990x680x540 mm	1180x780x600 mm	1590x1080x660 mm
PACKED WEIGHT	27 kg	54 kg	84 kg	132 kg	52 kg	70 kg	154 kg
ENCLOSURE MATERIAL	Solid walnut with 18-mm particle board crossbracing and heavy internal damping	Solid walnut with 18-mm particle board crossbracing and heavy internal damping	Solid walnut with 25-mm particle board, crossbracing and heavy internal damping	Solid walnut with 25-mm particle board, crossbracing and heavy internal damping	Solid walnut with birch ply, crossbracing and heavy internal damping	Solid walnut with birch ply, crossbracing and heavy internal damping	Solid walnut with 25-mm birch ply, crossbracing and very heavy internal damping

Remember to take care with any amplifier, irrespective of power output, to avoid abnormal conditions such as switch-on surges or output overload (clipping) which may result in power peaks greatly in excess of rated output. The high peak power handling of Tannoy loudspeakers will allow responsible use with larger amplifiers on wide dynamic range material. Due to our policy of continuous improvement, all specifications are subject to change without notice. Natural wood finishes may vary due to the availability of sustainable harvested woods.