TANNOY®

The Name for Loudspeakers

DOVER

DUAL CONCENTRIC TIME COMPENSATED LOUDSPEAKER SYSTEM

The famous Tannoy Dual Concentric in a modestly sized cabinet that can be floor standing on its own plinth, mounted on speaker stands or a bookshelf.

A 10" (254mm) version of the Dual Concentric drive unit is used in an infinite baffle (unported) cabinet, with rigid bracing and graded acoustic foam damping, to give the best possible sound reproduction in a loudspeaker of this size.

Each Dover is supplied with a separate plinth. If used as a floor standing loudspeaker this plinth can be attached to the base of the cabinet with the screws provided. When used on stands or shelves this plinth is not required.

The Dover is designed to provide the high quality sound of the Tannoy Dual Concentric system in a size of loudspeaker to suit smaller listening rooms.

The high quality of sound reproduction is matched by the standard of cabinet construction. Every Dover is finished in genuine walnut veneers, oiled by hand and the baffle is covered in real cork.

Why Dual Concentric?

The theoretically 'ideal' loudspeaker would have just one single drive unit producing both high and low frequencies.

This is, however, impossible as the reproduction of different frequencies requires drive units of quite different physical and electrical characteristics. High frequency reproduction requires a light, fast moving diaphragm; while a much larger unit is required to move the greater volume of air needed for mid and low frequencies.

In a conventional loudspeaker, therefore, two (or more) drivers are used, mounted separately on the front baffle behind the grille. This separation means that the soundwaves from each driver have to travel unequal distances to the listener, causing unnatural time delays in the arrival of high and low frequencies. That delay confuses our hearing mechanism, which is less able to reconstruct a convincing stereo image of the original performance.

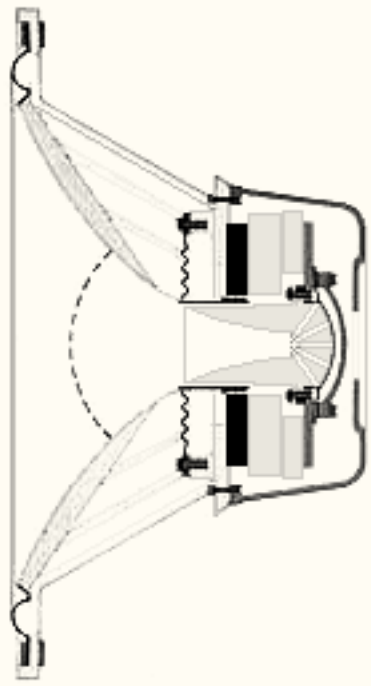
The Tannoy Dual Concentric takes a major step towards the theoretical ideal by actually combining two quite separate and physically different drive units within the same chassis.

High frequencies are reproduced by a compression driver, which is mounted behind the centre of the cone of the mid/low frequency driver. Both drivers are engineered to accept wide ranging power levels, using high temperature coil winding techniques, and are capable of very wide dynamic range reproduction.

The Tannoy Dual Concentric looks, at first glance, like one speaker. A closer look will reveal the throat of the compression driver behind the dust dome in the centre of the bass cone.

The result is that the source of sound at high frequencies and the source of sound at low frequencies are on the same axis. Complementary crossover design, using unique circuitry, aligns the high frequency and low frequency sources at one point on that axis.

The Tannoy Dual Concentric is, therefore, a true single point sound source loudspeaker system which eliminates unnatural time delays, and provides the smooth consistent intensity of sound necessary to create a precise stereo image.



The separate components of the Dual Concentric have been developed to be the best of their type available.

Our compression driver is a massive device in comparison with conventional tweeters, capable of accepting very high power inputs and converting significantly more of that power into pure sound. The horn throat and phase compensating array is machined from solid steel to eliminate resonance. The flare of the horn throat is continued by the bass cone, ensuring a smooth, distortion free sound at the crossover point.

Our special Barium Ferrite magnet has a much greater mass than most speaker magnets, and utilises a unique magnetic shunt to ensure the best acoustic balance of high and low frequencies.

The bass driver uses an individually treated cone with specially damped suspension to give controlled bass response without colouration.

The Complementary Crossover
Our crossover networks are individually designed to complement each model of loudspeaker and provide a fully 'phase coherent' system, using our unique circuitry. This gives a single point sound source, particularly at frequencies where the human ear derives the information necessary to create a precise stereo image.

All of our crossover components are the finest available and each is mechanically and thermally stable, enabling full advantage to be taken of the Dual Concentric's high power handling without the need for signal degrading 'protection' devices.

The Tannoy Dual Concentric System is not the cheapest way to make a loudspeaker; but we do it because we know it is the best way to give you superior stereo sound. The elimination of unnatural time delay distortion provides superb stereo imagery. Wide sound dispersion enables you to appreciate that image over a wider area than with conventional loudspeakers. Wide dynamic range gives you the highs and lows of a musical performance, and is essential to realise the full benefit of today's high quality analogue and digital recordings as well as tomorrow's laser technology.

DOVER—Technical specification

Recommended amplifier power (RMS per channel into 8Ω) ★		30–150W
Peak power handling ★		250W
Impedance		8Ω nominal 5.5Ω minimum
Sensitivity (1W @ 1m)		90dB (anechoic) 93dB (domestic)
Frequency response (± 3dB)		50Hz–20kHz
Phase response		150Hz–8kHz ± 18°
Time compensation		Better than ± 20μ sec 150Hz–8kHz
Dispersion (including angle @ -6dB points @ 10kHz)		90° conical
Crossover type		Passive, low loss, time compensated type 1040
Crossover frequency		1.2kHz
Driver type		Tannoy Dual Concentric high compliance type 2558 Diameter 254mm (10")
Distortion		Less than 5% 3rd harmonic at half power 150Hz–20kHz Less than 0.6% 3rd harmonic for 85dB 80Hz—20kHz
Cabinet type		Infinite baffle
Cabinet construction		18mm particle board with rigid bracing with internal damping
	Finish	Real walnut veneers
	Grille	Woven cloth over wood frame
Cabinet internal volume		31 litres (1.1 cu.ft)
Cabinet dimensions (h × w × d)		580 × 310 × 285mm (23 × 12 × 11")
	Packed	655 × 370 × 330mm (26 × 14½ × 13")
Cabinet weight		18kg (39½lbs)
	Packed	20kg (44lbs)

★ The peak power capability of all Tannoy Loudspeakers will allow higher amplifier powers to be used with wide dynamic range material. Care must be taken, however, to avoid conditions such as switch-on surges and amplifier overloading or 'clipping' which may result in momentary peaks of power greatly in excess of the specified ratings.

Due to our policy of continuous improvement, we reserve the right to change specifications without notice.

All Tannoy products are designed and manufactured in Great Britain by:

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