

TANNOY[®]
LONDON



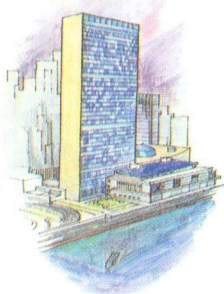
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Fifty Years of Tannoy

In 1926, before there was an Audio Communications Industry, and before the first talking film had yet been shown in Britain, Tannoy was experimenting with the exciting possibilities created by the still-new Thermionic valve and the techniques that came with it. By the late twenties, they were producing amplifiers and loudspeaker systems in their own factory, made to their own designs. The appearance of reliable, high quality sound equipment brought about revolutionary changes in every sphere of human activity: the ability to project personality, to reinforce musical performance and give information to assemblies of almost any size.

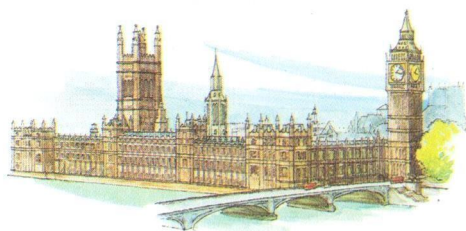


Tannoy played a leading role in providing the tools for that revolution.

The history of electro-acoustics is the history of Tannoy.

The first major impact was on entertainment. In 1930 a comprehensive sound system was installed in Olympia, London, to provide music and sound for the Bertram Mills circus, one of the largest and most famous in Europe. Massive musical productions at the Albert Hall, London, were made possible only through the use of sophisticated sound reinforcement systems. The effect of noise on the environment was becoming increasingly apparent by the mid-thirties. This gave rise to the need for accurate sound measurement. The Tannoy Sound Level Meter developed in conjunction with the National Physical Laboratory was one of the first in the world and was used extensively by government departments and large industrial concerns.

The experience gained in these early years placed Tannoy in a unique position to provide specialised communication and sound equipment to every branch of the armed forces engaged in the defence of Britain from 1939 to 1945. During this time the firm acquired extensive experience in new techniques and applications. It was natural that Tannoy should provide the public address equipment for the victory celebrations at Buckingham Palace, announcing the end of the war.



Peace and reconstruction brought new challenges. Tannoy installed sound reinforcement systems in the House of Commons and the House of Lords, Westminster, and simultaneous interpretation systems for the UN in Paris and the USA. They provided both recording studios and equipment manufacturers

with the Dual Concentric loudspeakers, forerunners of the present Integrated Loudspeaker System, as an essential component in the rapidly emerging high fidelity industry.

These successes in the early fifties led to requests for Tannoy sound expertise from many countries. Legislative assemblies were equipped world wide—among the most important installations being the national legislatures of India and Canada.

Meanwhile, the scope of Tannoy's research and manufacturing facilities was rapidly expanding. This resulted in high quality sound reinforcement for concert halls, including the Queen Elizabeth Hall in London and the New National Theatre in Rumania. Further examples were simultaneous interpretation and sound reinforcement in boardrooms of banks and international bodies, fog warning systems around the coasts of Britain, Canada and Chile and for oil or gas rigs internationally. Specialised security sound systems were installed in royal palaces and government buildings. Microphones and electronic equipment, part of an updated House of Commons system by Tannoy, were used for the first public radio broadcasts from the chamber in 1975.

During these exciting and challenging years the engineers responsible for the Dual Concentric loudspeakers of the fifties had patiently been refining and improving the Tannoy Integrated System so that today it is recognised as a standard of quality for the finest home systems. It recently has been selected for use in quantity by the South African Broadcasting Company, the Canadian Broadcasting Company and Polish Radio and TV. Tannoy also has engineered and supplied communication systems at five international airport locations on the African continent—in Cairo, Tripoli, Nairobi, Mombasa and Zanzibar.



The activities of Tannoy know no frontiers. Their expertise in sound engineering and their specialised products are constantly in demand throughout the world.

The Tannoy organisation was founded by Guy R. Fountain who directed its activities until his retirement in 1974, when Tannoy joined with Harman International Industries. Since this amalgamation, Tannoy has begun a period of new activity, exemplified by the expansion of its engineering forces and worldwide marketing operations, growth of its international systems engineering organisation and, most recently, the installation of a large, modern, transducer facility at Coatbridge, Scotland.

Arden

The outstanding performance characteristics of the HPD 385A Integrated Loudspeaker System are completely realised by the Arden, the largest model in the range. An extended bass response is obtained through the use of a triple ducted port system resulting in very low distortion products. The system is front recess mounted to avoid tunnel and diffraction effects. With gen-

erous internal strutting for high rigidity, the internal cavity is critically damped with graded acoustic foam ensuring lack of coloration in the bass response.

The HPD 385A in the Arden enclosure fully meets the requirements of all professional applications and the more ambitious home installations.

Berkeley

This system provides the high power handling capacity and sensitivity of the HPD 385A unit in a compact enclosure where insufficient space is available to accommodate the Arden.

A carefully designed dual ducted port provides optimum bass characteristics in relation to enclosure volume, and the loud-

speaker is front recess mounted to ensure unimpeded treble response. High density stock is used throughout the cabinet construction and massive internal reinforcement renders the structure free from spurious resonances. Each section of the two part grille can be removed separately to facilitate treble adjustment.

Cheviot

This is the smallest freestanding cabinet in the Tannoy range and uses the HPD 315A system. The enclosure/loudspeaker combination achieves remarkably solid bass,

while the high power handling capacity and extended treble response of the HPD 315A put this model in a category more usually associated with professional equipment.

Devon

The largest bookshelf enclosure in the Tannoy range is fitted with the HPD 315A Integrated Loudspeaker System handling 60 watts. This, combined with high sensitivity, provides a standard of performance superior to many large freestanding systems. Very rigid cabinet construction with a complete absence of random leaks, together with critical internal damping and

a ducted bass port, provide smooth, extended bass to complement the outstanding treble response of the high frequency compression driver.

The performance of this type of system has led to its selection as a mobile studio monitor by major recording and broadcasting authorities throughout the world.

Eaton

The performance of the Eaton sets an entirely new standard for bookshelf systems. Power handling capacity of 50Watts combined with the high sensitivity of the HPD 295A make the Eaton superior to many larger loudspeakers costing more and requiring much higher driving power. The enclosure's ducted port and carefully ad-

justed internal acoustic foam damping provide bass response out of all proportion to its size.

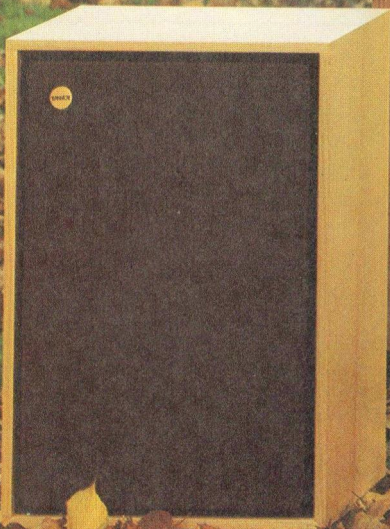
This outstanding system enables those with only limited space to enjoy the full range natural sound which over the years has become associated with the name of Tannoy.

*Tannoy Integrated Loudspeaker Systems photographed at Petworth House, Sussex,
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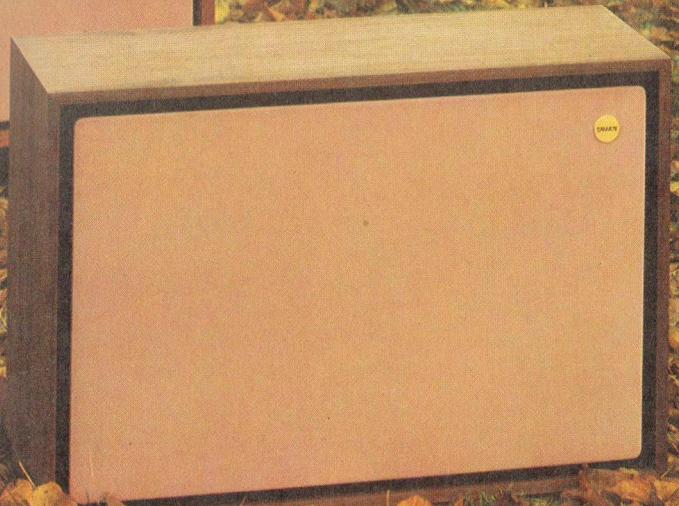
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Eaton



Berkeley



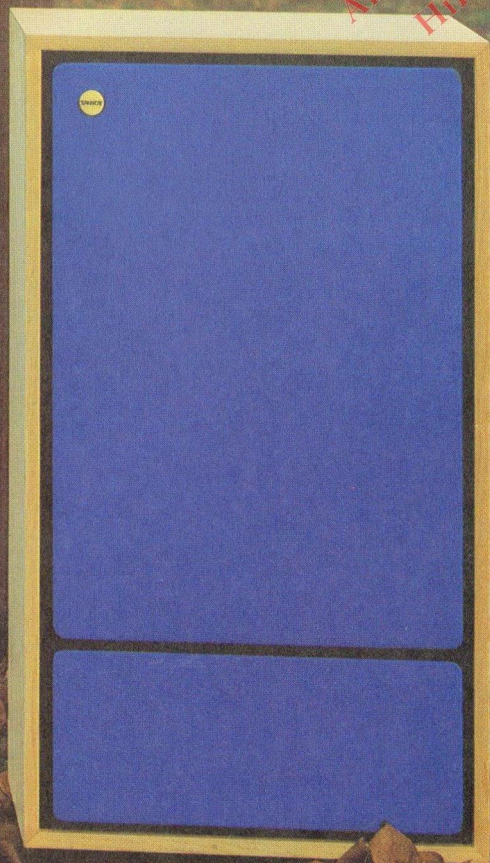
Devon

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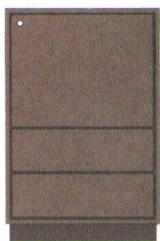
Arden



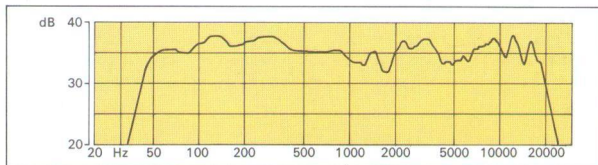
Cheviot

Technical Specifications

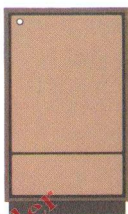
Arden



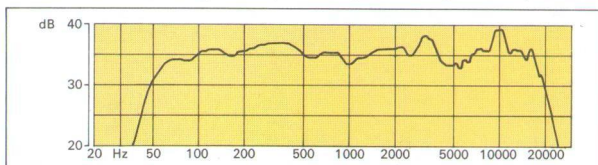
Driver system HPD385A
Power handling capacity 85 Watts
Sensitivity 91dB @ 1m for 1w input (3.1w DIN 96dB)
Dimensions 39" (99cm) × 26" (66cm) × 14½" (37cm)



Berkeley



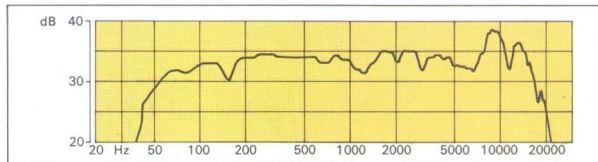
Driver system HPD385A
Power handling capacity 85 Watts
Sensitivity 91dB @ 1m for 1w input (3.1w DIN 96dB)
Dimensions 33" (84cm) × 21" (53.6cm) × 12" (30.8cm)



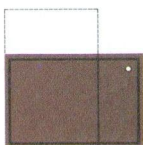
Cheviot



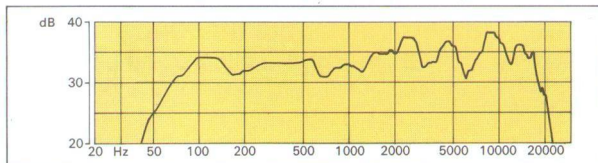
Driver system HPD315A
Power handling capacity 60 Watts
Sensitivity 89dB @ 1m for 1w input (5w DIN 96dB)
Dimensions 33" (84.6cm) × 17½" (44.6cm) × 10¼" (26cm)



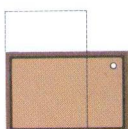
Devon



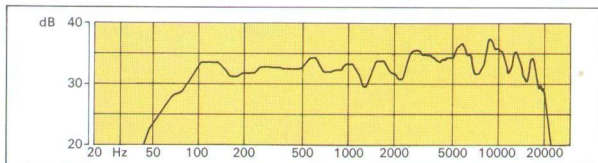
Driver system HPD315A
Power handling capacity 60 Watts
Sensitivity 89dB @ 1m for 1w input (5w DIN 96dB)
Dimensions 23" (58.4cm) × 15¾" (40cm) × 10¼" (26cm)



Eaton

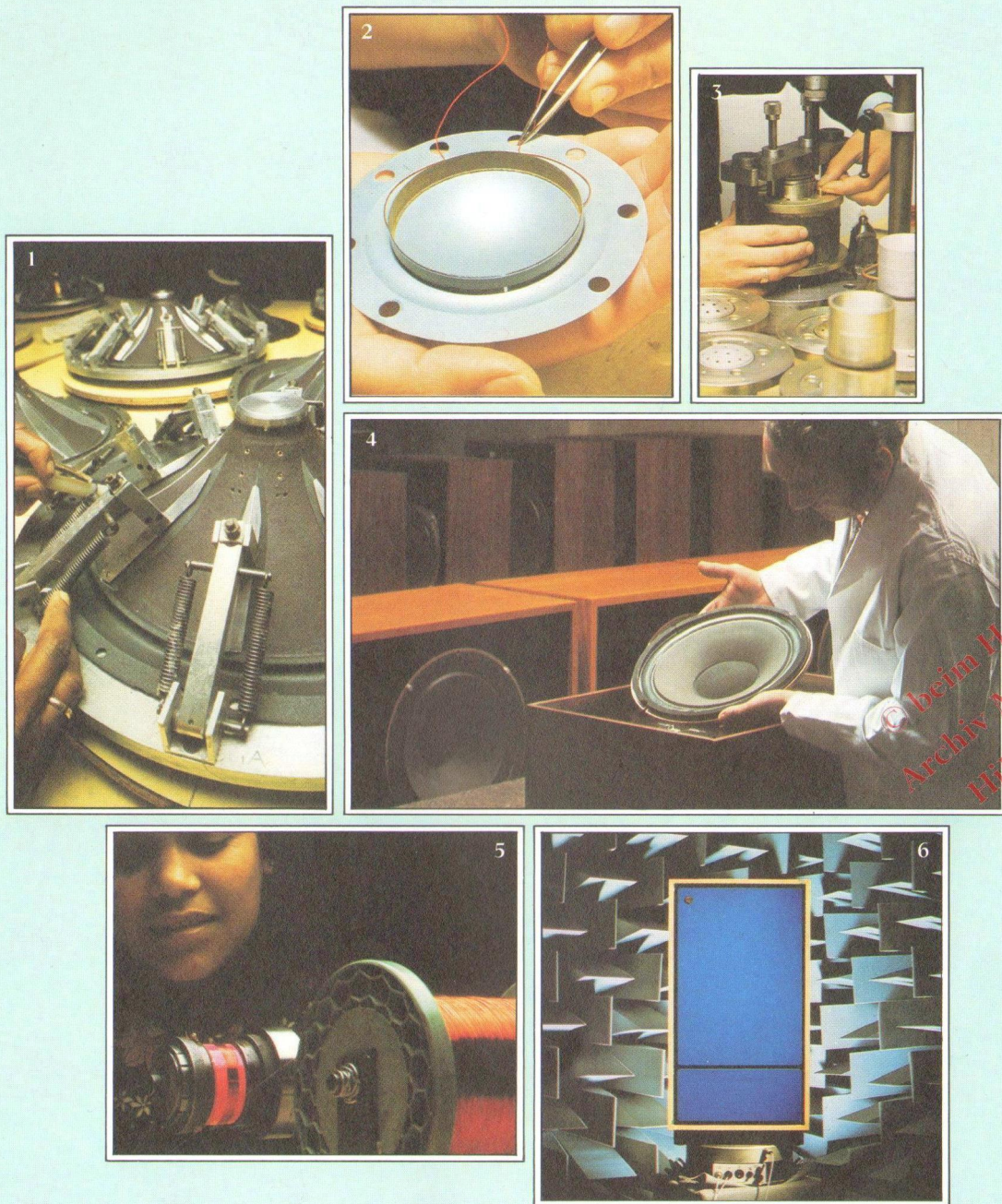


Driver system HPD295A
Power handling capacity 50 Watts
Sensitivity 87.5dB @ 1m for 1w input (7w DIN 96dB)
Dimensions 20¾" (52.4cm) × 13¾" (35cm) × 9¾" (25cm)



All systems 8 Ω impedance
All sensitivity measurements taken in anechoic chamber

Tannoy Craftsmanship



Unlike many companies, we carry out in our own factories under strict control all processes which are essential to the achievement of Tannoy's standards of excellence. These proprietary procedures include cone, diaphragm and magnet assembly, coil wind-

ing and machining operations.

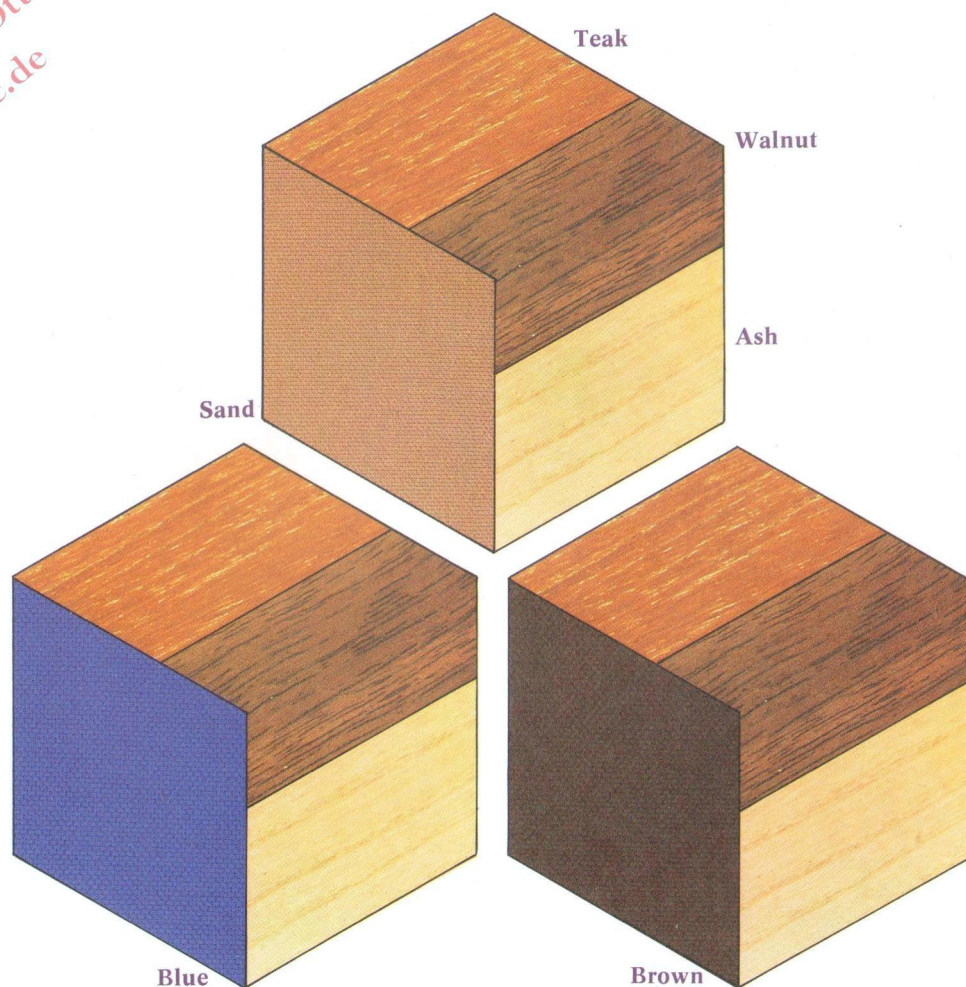
Tannoy loudspeakers represent a unique combination of scientific development, stringent manufacturing techniques, individual craftsmanship and, above all, pride in the completed instrument.

*1 Girdacoustic cone construction 2 Diaphragm finishing
3 Magnet assembly 4 Final assembly 5 Voice coil winding 6 Loudspeaker test chamber*

Finishes

Tannoy loudspeaker cabinets are available in a range of hand selected and matched wood veneers, each finished to reveal and enhance its natural beauty. Walnut is carefully hand rubbed with oil and wax to show the rich depth of the wood, while Ash and Teak are coated with the finest clear Melamine lacquers which conceal none of the delicate grain structures but, at the same

time, afford excellent protection. These finishes can be combined with acoustically transparent grilles in brown, sand or blue to harmonise with virtually any interior decor. Form, fabric, fine woods and finishes have been employed by the designers to give outward expression to the technical excellence and rigidly meticulous craftsmanship of the Tannoy Integrated Loudspeaker System.



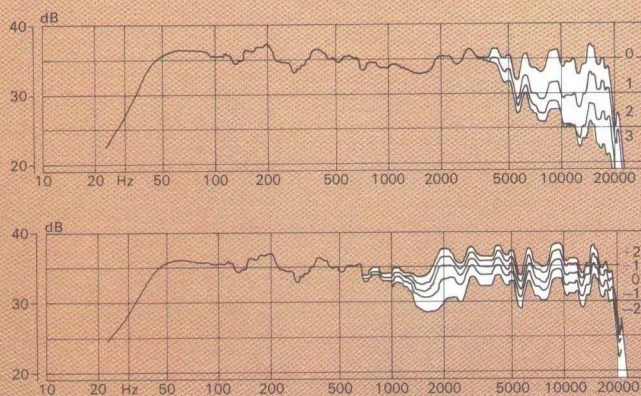
The Crossover Network

The Tannoy crossover network divides the electrical energy from the amplifier between the high frequency compression driver and the low frequency direct radiator and makes a vital contribution to the overall performance of the system.

It incorporates two controls. One permits attenuation of the treble energy output only in the range above 5Khz. The other allows the output of the high frequency unit to be increased or attenuated over its entire range

from 1Khz to 20Khz, compensating for room acoustics and individual preference. The crossover is assembled to the very highest standards on a fibreglass printed circuit board. Solid dielectric capacitors are used throughout and all resistors and inductors are very generously rated.

The design of the crossover ensures that the complete loudspeaker system has an excellent impedance characteristic which provides the ideal load for any amplifier.



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Tannoy Integrated Loudspeaker System

This system is a highly developed and refined version of the Tannoy loudspeaker. It utilises the dual concentric principle to provide an integrated sound source which, over the past quarter of a century, has become an established quality reference in recording, broadcasting and television studios.

The Tannoy system combines a precision built high frequency compression horn driver with a direct radiator bass unit embodying the unique Girdacoustic* reinforced cone.

These two drivers are mounted concentrically on a single frame and magnet assembly. They are driven through a sophisticated separate crossover network creating a system covering the entire frequency range from 20hz to 20Khz.

Distortion products are negligible, and the wide, smooth frequency range with excellent transient response result in very natural

reproduction and an almost total lack of coloration.

An important component in the Tannoy system is the enclosure. Correct acoustic design is vital to ensure that maximum advantage is taken of the superb performance of the loudspeaker unit.

The result is a range of enclosures offering optimum performance and elegant appearance. Designed to blend well with any furnishing scheme or decor, these carefully engineered cabinets exploit to the fullest extent the capabilities of each Tannoy Integrated Loudspeaker System.

Sensitivity is high. A 20 Watt amplifier used with the smaller systems is more than adequate for normal domestic purposes. This sensitivity, combined with high power handling capacity, makes the larger units ideal for the most sophisticated professional or home installations.

**on HPD 315A and HPD 385A only.*

Acoustic balance cavity
for reduced distortion

Phase-compensating
multiple throat for
extended and smooth
HF response

High temperature
voice coil

Unique ribbing virtually
eliminates cone break-up
ensuring smooth response
and extraordinarily
high power capacity

Rolled surround
for stability in
low bass response



Exclusive
magnetic shunt
for increased
LF flux

Aluminium voice
coil conductor for
superb HF response

Concentric HF horn
(completed by
curved LF cone)

Dustproof,
acoustically transparent
sealing dome

Precision contoured
high frequency diaphragm.

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The Tannoy system is built high frequency driver with a tweeter embodying the forced cone.

These two drivers are cally on a single They are separate system components from 200

Distortion wide stereo central

important component in the Tannoy system is the enclosure. Correct acoustic design is vital to ensure that maximum advantage is taken of the superb performance of the speaker unit.

A range of enclosures offering a choice of appearance and elegant appearance to blend well with any furniture or decor, these carefully designed enclosures exploit to the fullest the capabilities of each Tannoy Integrated system.

Watt amplifier used with an adequate power supply



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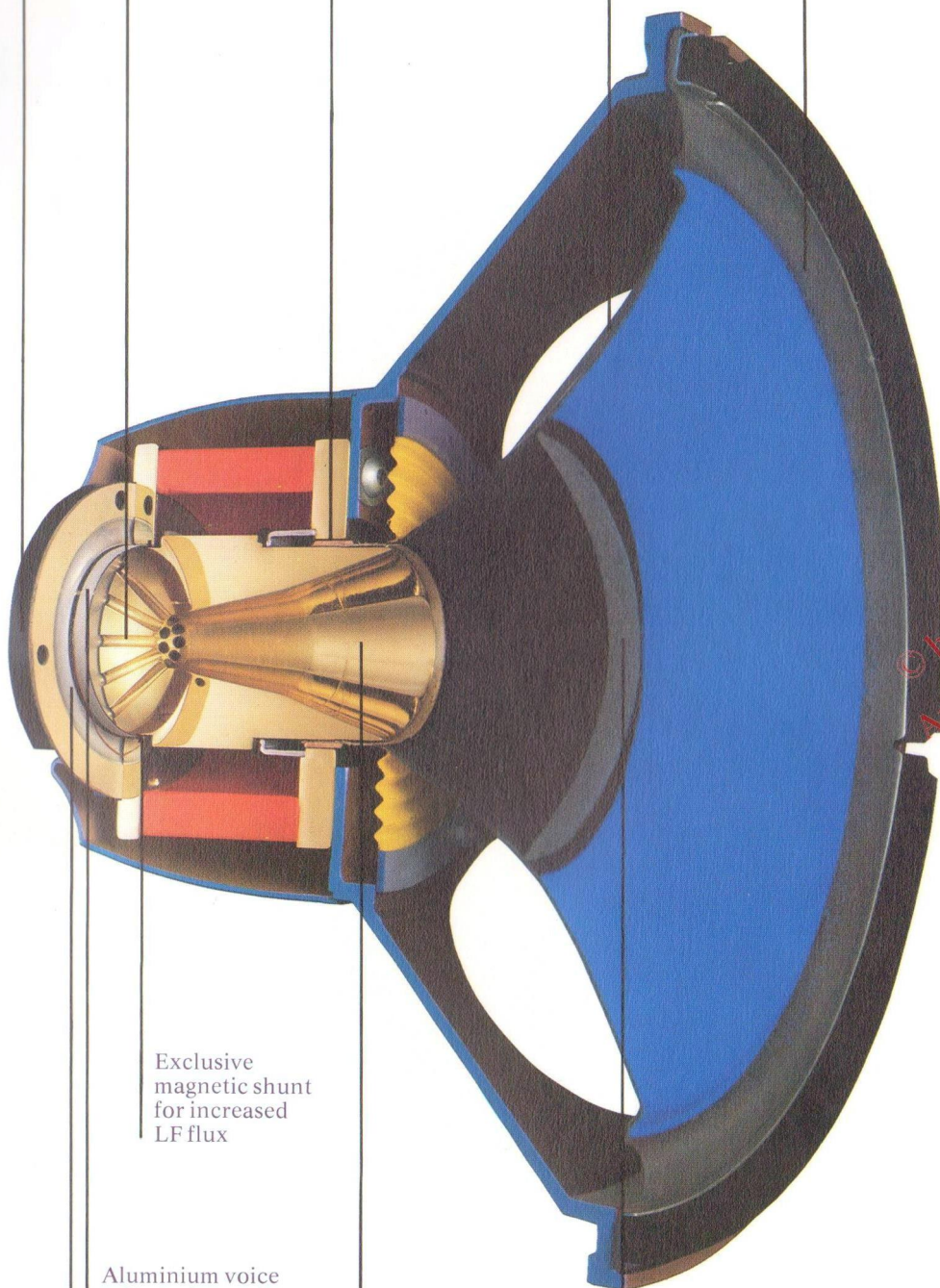
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Rolled surround
for stability in
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Concentric HF horn
(completed by
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Dustproof,
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Tannoy Products Ltd
High Fidelity Division
Canterbury Grove
London SE27 0PW England

Telephone 01-670 1131
Telegrams Tannoy London SE27
Telex 949755

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New production methods, materials and design refinements
are always being considered for
introduction into existing products without notice.

For this reason, any current Tannoy product
may differ in some respect from its published description
but is always warranted to equal or exceed
the original design specifications unless otherwise stated.

*Cover: Part of the 18th Century plasterwork ceiling in the Morning Room at Saltram House, Devon,
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