Tannoy Integrated Loudspeaker Systems are the choice of discriminating music lovers the world over. Renowned for unprece- dented accuracy and naturalness, they have long been the choice of professional users in the recording, broadcasting and sound engineering industries. In fact many of the world's leading studios have professional monitor systems which were developed by Tannoy design engineers.

The result of such dedication to quality is that, whatever the style of music or its source, Compact Disc, records or tape, Tannoy loudspeakers perform to a standard unsurpassed by other manufacturers.

Innovative Excellence
Being the only manufacturer to have been awarded Japan's prestigious 'Golden Sound' award twice speaks for itself. The excellence of Tannoy loudspeakers has long been recognised in Japan where the GRF Memory won the prestigious Stereo Sound 'State-of-the-Art' award. But Tannoy's devotion following extends far beyond Japan to those seeking excellence all over the world.

Catering for all requirements, the loudspeaker range includes the famous Dual Concentric models as well as those using metal dome tweeters and separate bass units.

Unsurpassed Performance
Design by one of the strongest audio engineering teams in the business has led Tannoy to achieve numerous Hi-Fi Choice Best Buys and Recommended accolades. Tannoy's is a team that designs loudspeakers from the bottom up. Musical excellence is first designed in and then production values and quality control are applied to keep it perfected an electrolytic rectifier which was simple and reliable enough for home use. It was then he coined the name Tannoy. His rectifiers used two metals - Tantalum and a lead alloy - hence Tannoy. Not long after Guy's first Tannoy factory was established and he began experiments with moving coil loudspeakers using DC energised magnets. Early in 1930 the company won a contract to supply the Bertram Mills Circus with a sound reinforcement system. The company never looked back.

Moving with the Times
Wartime demand for mobile, portable systems made Tannoy famous for its communications systems. Later Tannoy equipment was installed both in the House of Commons and in major United Nations buildings. Soon, there was scarcely a country in the world where Tannoy had not created a vital link in international debate.

The 1940s and 1950s established Tannoy as the leading manufacturer of recording studio monitors outside the USA. By this time Tannoy had become well-known for its high quality loudspeakers supplying the fast growing audio and hi-fi markets. It was at this time that the first Dual Concentric loudspeaker was produced.
UNPRECEDENTED ACCURACY

An important part of Tannoy’s design approach has always been to produce loudspeakers with levels of performance beyond the most exacting specifications of contemporary disc and tape playing equipment.

Sound systems of unprecedented accuracy and naturalness are the result of Tannoy’s wealth of experience together with computer based research and production methods, rigid quality control and a tradition of superb craftsmanship.

Loudspeaker design can no longer be thought of as a black art. Today it is possible to use computers to model designs and predict results. Comprehensive test equipment is used to pin-point problems with cabinets or drive units; anechoic chambers assist in producing accurate measurements. Computer aided design (CAD) and sophisticated test equipment are used extensively at Tannoy but we always remember that listening tests must be the final judge.

THE CONTROL OF MUSICAL EXCELLENCE

Approved to 05-24 military requirements, Tannoy follows a policy of stringent quality control procedures using sophisticated measurement facilities. Tight quality control is more easily achieved because all the loudspeakers are built in the Tannoy factory in Scotland. For example, all drive units are designed and manufactured in-house. All incoming parts are thoroughly tested to ensure that they are as specified. Not only is all data computerised but computer aided design is used to ensure that every single loudspeaker meets Tannoy’s exacting standards. A policy of checking and double checking ensures that the musical excellence we design into every loudspeaker stays there.
DUAL CONCENTRIC LOUDSPEAKERS

The Dual Concentric principle gives the hi-fi enthusiast the benefits of a true studio monitor. Because the real harmonics and dynamics of the instruments and voices are retained, the music is clearer and more natural. The stereo image is sharper and more convincing.

A SINGLE POINT SOURCE

The benefits of having the high frequency driver sharing the same chassis as the bass driver are that the whole drive unit operates across the audio bandwidth as a single point source. The audio signal is supplied to each driver by a time compensated crossover, that aligns both high and low frequency sound sources towards a single point on the same axis. This eliminates unnatural time delays and produces almost tactile stereo images of tremendous stability.

THE SERIES 90

All the thinking behind previous Dual Concentric models has gone into the Series 90. The result is an exceptional range of products which we believe to be at the forefront of Dual Concentric technology. At its heart is the totally new design of the 8inch dual concentric drive unit.

The bass cone is precision formed from polyolefin co-polymer, a plastics material with high rigidity compared to mass yet with high self damping properties. Careful shaping of the flare of the cone ensures the most natural midband sound. To achieve maximum sensitivity and high power handling flat cross-section high quality copper wire is edge-wound on a high temperature kapton former for the bass coil.

DMT TECHNOLOGY

The high frequency unit is an aluminium diaphragm suspended by a polyamide surround. The use of this Differential Material Technology gives the high frequency driver very linear, piston-like characteristics with little variability due to temperature variations. Most importantly, it also gives very good self damping. With the addition of ferro-fluid damping and cooling liquid this helps push the first break up mode above the audible and excitible range and out of harm’s way. It also gives high power handling.

INTERNAL BRACING

Internal bracing of the drive units via a lossy coupling not only allows the cabinet to be braced to reduce panel resonance, but also disperses unwanted HF energy from the driver. The overall result is an increase in 'speed' and reduced transient smear.

BI-WIRING

All Tannoy series 90 loudspeakers permit bi-wiring if desired. Two pairs of loudspeakers cables per speaker are required, one to connect the bass unit and one to connect the tweeter. Splitting the signals for both bass and treble separates the ground paths reducing driver interaction which leads to a far cleaner sound with full more natural dynamics.

EXCELLENT STEREO IMAGING

Restricted dynamic range is becoming more apparent with the availability of high quality digital recordings and Compact Discs but the Series 90 speakers do not suffer from this dynamic compression. In addi-
tion, the directivity of the dual concentric drivers is controlled so that the speakers can be positioned close to side walls without compromising their excellent stereo imaging abilities.

**DC1000**
Offering excellent bass extension for its size, this compact speaker has a ducted port tuned for fast, accurate bass.
- 8inch Dual Concentric DMT driver
- Single point source
- Bi-wired, gold terminals
- High sensitivity
- Hardwired quality crossover
- Rigidly braced driver
- Ducted port system
- Compact design
- Black ash or rosewood finish

**DC2000**
Designed to deliver high sensitivity and bass extension, the DC2000 is a compact, floor-standing speaker.

Floor coupling spikes may be used for optimum bass and midband clarity and allow the speaker to be tilted to an optimum listening position. Nylon screw-in feet may be used on a highly polished floor.
- 8inch Dual Concentric DMT driver
- 8inch bass unit, driven below 400Hz
- Bi-wired, gold terminals
- High sensitivity
- Hardwired quality crossover
- Cross braced drivers and cabinet
- Closed box system
- Floor standing design with coupling spikes
- Black ash finish

**DC3000**
A floor-standing loudspeaker finished in either a black ash or rosewood veneer, which has been designed to reduce standing waves by avoiding parallel long dimensions. A slotted rear port is tuned to achieve a real room response as low as 30Hz and a low ‘Q’ ensures fast accurate bass with a good dynamic response and little overhang. Additional damping and mass loading is facilitated by a space at the base which may be weighted with dry sand or lead shot. By reducing the centre of gravity this, together with the floor coupling spikes, keeps the speakers from rocking and thus reducing the dynamic quality of the system.
- 8inch Dual Concentric DMT driver
- 8inch bass unit, driven below 400Hz
- Bi-wired, gold terminals
- High sensitivity
- Hardwired quality crossover
- Medite cabinet for high rigidity
- Cross braced drivers and cabinet
- Slotted port system
- Floor standing design with coupling spikes
- Mass loaded cabinet
- Wired with Van den Hul cable
- Black ash or rosewood veneers
With the Planet series Tannoy succeeded in producing a range of hi-fi speaker systems capable of full dynamic range performance from compact cabinets. The series won many awards and set new standards in compact loudspeaker design.

**DMT TECHNOLOGY ENSURES SUCCESS**

The use of Differential Material Technology (DMT) ensures the new aluminium dome tweeter behaves as a true piston with the first break-up mode way above the audible range. The 25mm aluminium diaphragm is coupled to a high temperature polyamide insulated coil wound onto a Kapton former. A polyamide plastics material was chosen for the suspension because it offers good self-damping and is not variable with temperature. Ferrofluid damping and cooling liquid is used to improve performance and power handling. This technique avoids undesirable eddy current coupling effects which are found in one-piece metal dome designs.

**E11**

A compact speaker producing an excellence of sound quality which belies its size. A simple crossover of high quality components integrates the 6.5inch bass unit with the 25mm aluminium dome. Although designed for stand mounting, a rear facing port also allows the speakers to be placed close to a wall.

- 25mm DMT aluminium dome tweeter
- 6.5inch polyolefin co-polymer bass driver
- Hardwired, high quality crossover
- Bi-wired
- Ducted port system
- Black ash finish

**M15**

A two-way 8inch bass driver loudspeaker which sets new standards for this classic cabinet size. The front ported design allows for free-field mounting on stands.

- 25mm DMT aluminium dome tweeter
- 8inch polyolefin co-polymer bass driver
- Hardwired, high quality crossover
- Bi-wired
- Ducted port system
- Black ash or rosewood finish

**BETTER DAMPING AND CONTROL**

Because of their sonic qualities we use polyester capacitors, high quality resistors and iron-dust core inductors. The high frequency unit (tweeter) is coupled by an auto transformer with a series capacitor and damping resistor. This maintains a very low drive impedance to the tweeter giving better damping and control.

**Bi-wiring**

All Tannoy Series 90 loudspeakers permit bi-wiring if desired. Two pairs of loudspeakers cables per speaker are required, one to connect the bass unit and one to connect the tweeter. Splitting the signals for both bass and treble separates the ground paths leading to a cleaner sound with full natural dynamics.
A compact, floor-standing loudspeaker configured to deliver both high sensitivity and good bass extension. Floor coupling spikes may be used for optimum bass/midband clarity and allow the speakers to be tilted back for optimum listening position.

A tall, floor-standing loudspeaker finished in real wood veneers. The cabinet size and construction together with the driver configuration produces a fast accurate bass with good dynamic response and low overhang. Additional damping and mass loading is facilitated by a space at the base which may be filled with dry sand or lead shot. By reducing the centre of gravity this, together with the floor coupling spikes, keeps the speakers from rocking and thus reducing the dynamic quality of the system.
LOUDSPEAKER SPECIFICATIONS

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>DC1000</th>
<th>DC2000</th>
<th>DC3000</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECOMMENDED AMPLIFIER POWER</td>
<td>10-120 WPC</td>
<td>10-150 WPC</td>
<td>10-175 WPC</td>
</tr>
<tr>
<td>NOMINAL IMPEDANCE</td>
<td>8 ohms</td>
<td>6 ohms</td>
<td>6 ohms</td>
</tr>
<tr>
<td>MINIMUM IMPEDANCE</td>
<td>5 ohms</td>
<td>4 ohms</td>
<td>4 ohms</td>
</tr>
<tr>
<td>SENSITIVITY (2.83V @ 1m)</td>
<td>90 dB</td>
<td>92 dB</td>
<td>92 dB</td>
</tr>
<tr>
<td>FREQUENCY RESPONSE +/-3dB</td>
<td>48Hz-25kHz</td>
<td>44Hz-25kHz</td>
<td>30Hz-25kHz*</td>
</tr>
<tr>
<td>CROSSOVER FREQUENCY</td>
<td>2.3kHz</td>
<td>400Hz &amp; 2.3kHz</td>
<td>400Hz &amp; 2.3kHz</td>
</tr>
<tr>
<td>CROSSOVER TYPE</td>
<td>Overdamped first &amp; second order with impedance compensation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TERMINALS</td>
<td>Gold, bi-wired</td>
<td>Gold, bi-wired</td>
<td>Gold, bi-wired</td>
</tr>
<tr>
<td>SYSTEM TYPE</td>
<td>Ducted port</td>
<td>Closed box</td>
<td>Slotted port</td>
</tr>
<tr>
<td>INTERNAL VOLUME</td>
<td>17 litres</td>
<td>31 litres</td>
<td>40 litres</td>
</tr>
<tr>
<td>DIMENSIONS (WxHxD) mm</td>
<td>248x497x205</td>
<td>260x716x253</td>
<td>260x910x300</td>
</tr>
<tr>
<td>WEIGHT EACH</td>
<td>8.1 Kg</td>
<td>19.9 Kg</td>
<td>26.7 Kg</td>
</tr>
</tbody>
</table>

* Typical room response

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>E11</th>
<th>M15</th>
<th>M20</th>
<th>J30</th>
<th>J95</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECOMMENDED AMPLIFIER POWER</td>
<td>10-90 WPC</td>
<td>10-100 WPC</td>
<td>10-100 WPC</td>
<td>10-110 WPC</td>
<td>10-125 WPC</td>
</tr>
<tr>
<td>NOMINAL IMPEDANCE</td>
<td>8 ohms</td>
<td>8 ohms</td>
<td>8 ohms</td>
<td>8 ohms</td>
<td>8 ohms</td>
</tr>
<tr>
<td>MINIMUM IMPEDANCE</td>
<td>6 ohms</td>
<td>6 ohms</td>
<td>6 ohms</td>
<td>6 ohms</td>
<td>5 ohms</td>
</tr>
<tr>
<td>SENSITIVITY (2.83V @ 1m)</td>
<td>88 dB</td>
<td>89 dB</td>
<td>89 dB</td>
<td>90 dB</td>
<td>90 dB</td>
</tr>
<tr>
<td>FREQUENCY RESPONSE +/-3dB</td>
<td>55Hz-20kHz</td>
<td>48Hz-20kHz</td>
<td>48Hz-20kHz</td>
<td>40Hz-20kHz*</td>
<td>30Hz-20kHz*</td>
</tr>
<tr>
<td>CROSSOVER FREQUENCY</td>
<td>3kHz</td>
<td>3kHz</td>
<td>3kHz</td>
<td>3kHz</td>
<td>3kHz</td>
</tr>
<tr>
<td>CROSSOVER TYPE</td>
<td>First order low pass, overdamped second order highpass</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TERMINALS</td>
<td>Bi-wired</td>
<td>Bi-wired</td>
<td>Gold, bi-wired</td>
<td>Gold, bi-wired</td>
<td>Gold, bi-wired</td>
</tr>
<tr>
<td>SYSTEM TYPE</td>
<td>Ducted port</td>
<td>Ducted port</td>
<td>Ducted port</td>
<td>ABR</td>
<td>Closed box</td>
</tr>
<tr>
<td>INTERNAL VOLUME</td>
<td>11 litres</td>
<td>17 litres</td>
<td>17 litres</td>
<td>31 litres</td>
<td>45 litres</td>
</tr>
<tr>
<td>DIMENSIONS (WxHxD) mm</td>
<td>210x388x205</td>
<td>248x497x205</td>
<td>248x497x205</td>
<td>260x716x253</td>
<td>260x910x300</td>
</tr>
<tr>
<td>WEIGHT EACH</td>
<td>5.2 Kg</td>
<td>7.0 Kg</td>
<td>3.4 Kg</td>
<td>15.8 Kg</td>
<td>23.6 Kg</td>
</tr>
</tbody>
</table>

* Typical room response

LOUDSPEAKER STANDS

TS 250

Designed to complement the stylish good looks of the speakers, the stands are both structurally rigid and aesthetically pleasing. The cast base, ribbed for strength, can be fitted with either three floor coupling spikes or nylon domes. The extruded aluminium upright is designed to allow mass loading/damping, with lead shot or dry sand if desired and has a separate channel that can hide the loudspeaker cable. The solid top plate is tapped to allow the optional use of three upward pointing loudspeaker coupling spikes.


Tannoy North America Inc. 300 Gage Avenue, Unit 1, Kitchener, Ontario N2M 2C8, Canada. Telephone: (519) 745-1138. Telex: 06955328 TANNOY KTCCH Telefax: (519) 745 2364

TANNOY A Member of The Group of Companies