

## BUDGETING FOR THE BEST

Let's face it: high fidelity is an expensive business and all too often when one has bought a really good amplifier, and a transcription motor, there isn't much left over for a speaker system to do justice to them both. Yet nobody likes buying any speaker as a temporary measure only to scrap it later when the Budget permits something better.

The latest additions to the TANNOY range offer the ideal solution to this problem. The new 12-in. wide range Direct Radiator, used as a single high-fidelity speaker is capable of impressive performance in the realm of realism. Later, when the budget allows, it becomes a middle and top range unit, with the new 15-in. L.F. speaker as the bass unit. Finally, with the addition of the new horn-loaded H.F. unit, the 12-in. Direct Radiator is at its best as a middle-range unit.

A specially designed cross-over unit ensures optimum performance at each stage of developing the system *and nothing is wasted.*

These three new TANNOY units will also meet the requirements of perfectionists who are not prepared to accept less than the famous TANNOY DUAL CONCENTRIC standard of performance but prefer the flexibility of a multiple system.

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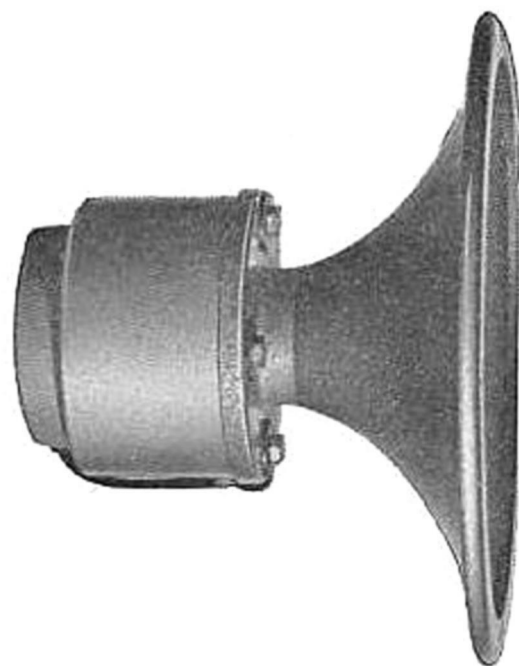
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**BUDGETING  
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**TANNOY**  
REGD.

## TANNOY HIGH FREQUENCY LOUDSPEAKER UNIT



This horn-loaded high frequency unit has been introduced to meet the requirements of those who prefer a multi-speaker wide range system. It will cover a high frequency range from 1,000 c/s per second upwards and when used in conjunction with a properly designed H.F. filter network has a smooth response well maintained up to 20,000 c/s per second. The diaphragm and phase matching throat are identical to those used in the world-renowned Tannoy Dual Concentric Units, incorporating a plastic-coated light alloy diaphragm and using an aluminium voice-coil conductor. The rigid aluminium horn is clamped in a special shock absorbing mounting to prevent the possibility of resonance at any frequency. There is little doubt that this unit used in conjunction with a suitable L.F. system can provide reproduction of the very highest order obtainable from twin loudspeaker systems.

### SPECIFICATION

|                              |     |     |     |                                                                      |
|------------------------------|-----|-----|-----|----------------------------------------------------------------------|
| Frequency Response ...       | ... | ... | ... | 1,000 to 20,000 c/s per second                                       |
| Voice coil Impedance ...     | ... | ... | ... | 15 ohms                                                              |
| Flux Density ...             | ... | ... | ... | 15,000 Gauss                                                         |
| Power Handling Capacity ...  | ... | ... | ... | 20 watts of integrated programme material above 1,000 c/s per second |
| Basic Overall efficiency ... | ... | ... | ... | 40%                                                                  |
| Maximum depth ...            | ... | ... | ... | 7"                                                                   |
| Maximum diameter ...         | ... | ... | ... | 9 1/4"                                                               |
| Fixing Holes P.C.D. ...      | ... | ... | ... | 9 1/4"                                                               |

### Recommended Bass Attenuation

Used with Direct Radiator L.F. Systems: 6 dB per octave below 1,000 c/s per second  
 Used with Horn-loaded L.F. Systems: 12 dB per octave below 1,000 c/s per second

## TANNOY 12" and 15" LOW FREQUENCY UNITS

These two units have been developed to provide drivers for the L.F. sections of twin unit loudspeaker systems. They both employ specially rigid cones with the unique Tannoy surround treatment providing correct termination, giving a very smooth frequency response. They may be used in either horn-loaded or direct radiator systems and the power-handling capacities given below are very conservative, inasmuch that no non-linearity will occur at these ratings, even at the very lowest frequencies.

### TECHNICAL SPECIFICATION

|                                     | 12"          | 15"          |
|-------------------------------------|--------------|--------------|
| L.F. Voice Coil Diameter ...        | 2"           | 2"           |
| Impedance ...                       | 15 ohms      | 15 ohms      |
| Flux Density L.F. Gap ...           | 10,000 gauss | 12,000 gauss |
| Power Handling Capacity ...         | 15 watts     | 25 watts     |
| Bass Resonance ...                  | 35 c.p.s.    | 32 c.p.s.    |
| Recommended Crossover Frequency ... | 1,700 c.p.s. | 1,000 c.p.s. |
| Overall Diameter of Frame ...       | 12 3/4"      | 15 1/4"      |
| Overall Depth ...                   | 7 1/2"       | 9"           |
| Fixing Holes P.C.D. ...             | 11 1/4"      | 14 1/4"      |



## TANNOY WIDE RANGE DIRECT RADIATOR LOUDSPEAKER

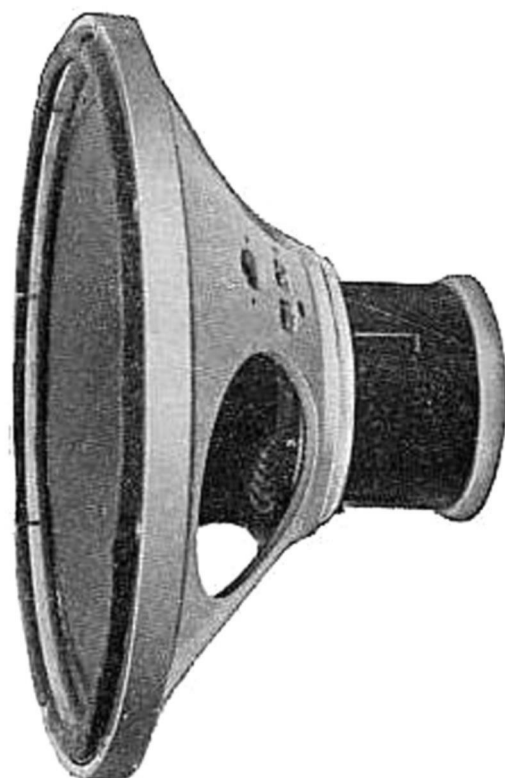
This Loudspeaker represents a considerable advance on similar units available hitherto, giving a very smooth frequency response throughout an extended bandwidth, together with a much improved distribution of the high frequencies.

A new curvilinear cone, the surround of which is treated by the unique Tannoy process, ensures the absence of objectionable sub-harmonics and provides correct termination, while a rigid domed duralumin diaphragm fitted directly to the voice coil does much to improve the high frequency response.

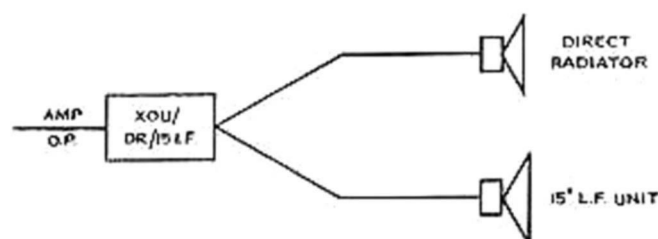
This unit by itself is a really outstanding reproducer and also forms an excellent unit for incorporation in either a two or three way system.

### TECHNICAL SPECIFICATION

|                           |     |     |     |                                     |
|---------------------------|-----|-----|-----|-------------------------------------|
| Voice Coil Diameter       | ... | ... | ... | 2"                                  |
| Voice Coil Impedance      | ... | ... | ... | 20 ohms at 400 c.p.s.               |
| Flux Density and Gap      | ... | ... | ... | 14,000 lines per sq. cm.            |
| Power Handling Capacity   | ... | ... | ... | 15 watts.                           |
| Useful frequency range    | ... | ... | ... | 40/17,000 c.p.s.                    |
| Frequency response        | ... | ... | ... | $\pm 4$ dB from 50 to 12,000 c.p.s. |
| Fundamental Resonance     | ... | ... | ... | 40 c.p.s.                           |
| Overall Diameter of Frame | ... | ... | ... | 12 1/2"                             |
| Fixing holes p.c.d.       | ... | ... | ... | 11 1/4"                             |
| Overall depth             | ... | ... | ... | 7"                                  |



### CROSS-OVER NETWORKS



### TANNOY TWO-WAY SPEAKER SYSTEM

The Tannoy progressive system has been especially designed to provide a high quality extended range system for the beginner, at the same time ensuring that his initial expenditure is not wasted as his field of listening expands. The 12" Direct Radiator, itself at the top of its class, is the nucleus to which each additional speaker is a step towards the ultimate in multi-speaker systems.

When adding either a 12" or 15" Low Frequency Unit to the 12" Direct Radiator, the Tannoy Crossover Unit type XOU/DR/15LF is used. This provides a crossover at 400 cycles.

*which may at a later date be converted into the*

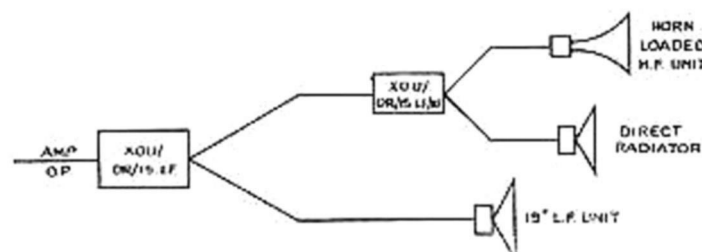
With the incorporation of the High Frequency unit to form a three-way system, a further crossover type XOU/DR/15LF/HF is employed, providing a crossover at 3,000 cycles between the Direct Radiator and High Frequency unit. A complete re-balancing of the system is achieved by removing the Direct Radiator lead from Crossover XOU/DR/15LF and inserting in that position the lead from the "B" Unit (Crossover XOU/DR/15LF/HF). To the inner position marked "DR.L/S" of Crossover XOU/DR/15LF/HF goes the Direct Radiator lead, and to the second position marked "HF.L/S" goes the high frequency tweeter.

Thus the system is truly progressive through speakers and cross-overs to ensure that every dollar spent is part of the ultimate and final system.

A suggested enclosure is shown over-leaf; this too can be used from start to finish.

For those who prefer a simple two way system incorporating the horn loaded HF Unit and Direct Radiator LF Unit the crossover unit type XOU/LSU/HF 15L is available and provides accurate matching of the two units.

### TANNOY THREE-WAY SPEAKER SYSTEM



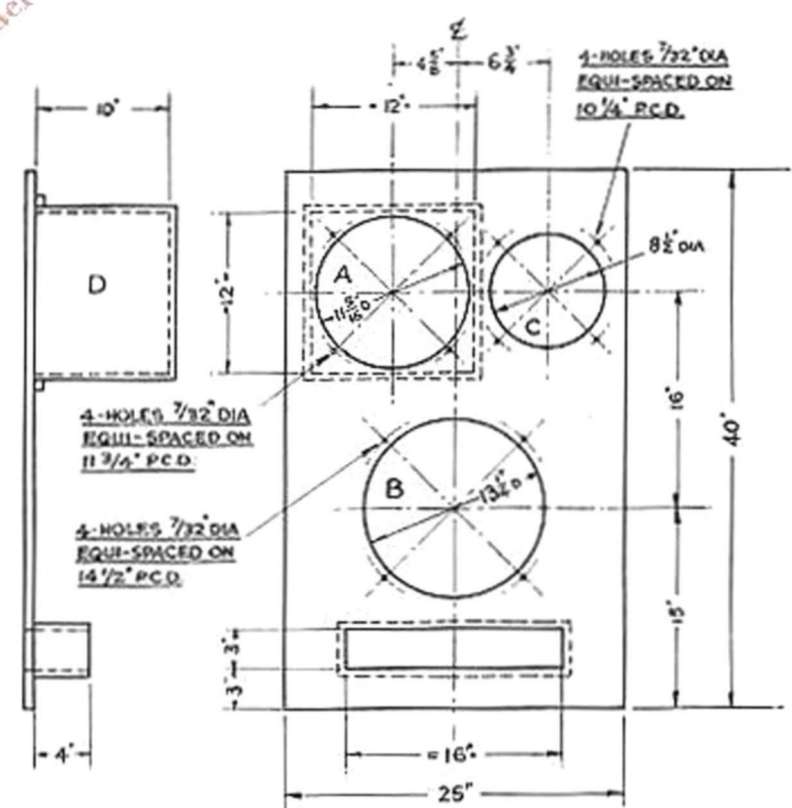
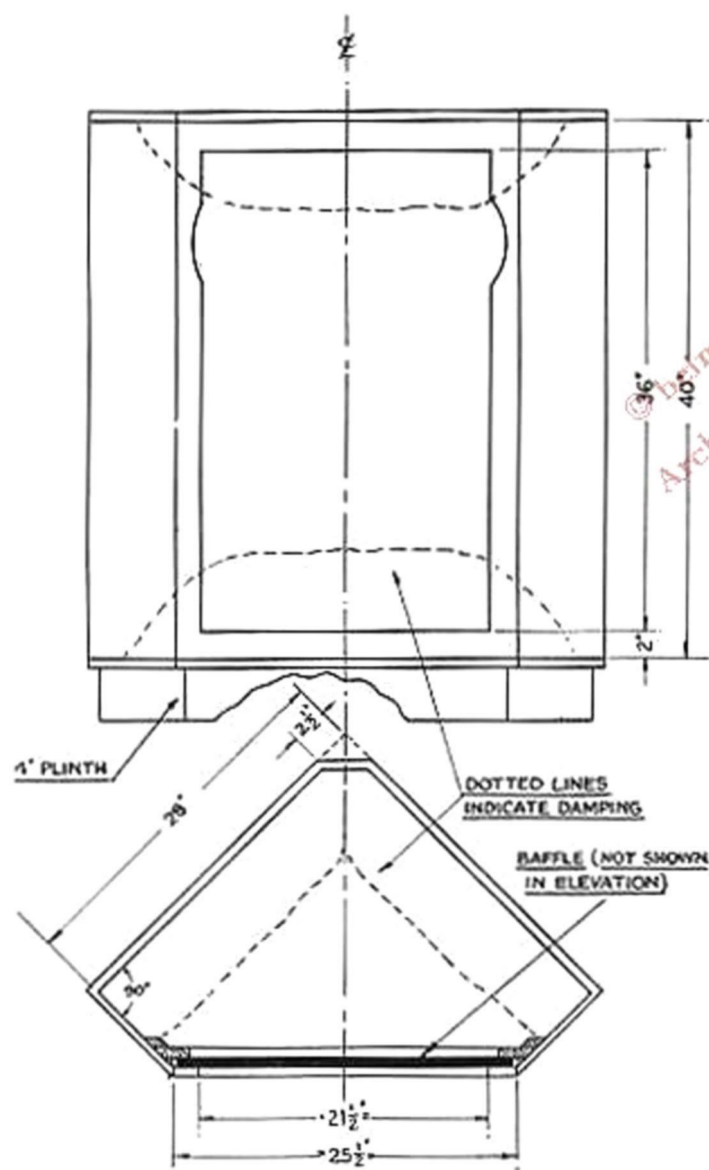
## BASS REFLEX ENCLOSURE FOR TANNOY TWO-WAY AND THREE-WAY LOUDSPEAKER SYSTEMS

The two drawings below give the basic details necessary for making a cabinet which may be used for either a direct radiator alone, the two way system comprising a Direct Radiator and a 15" LF Unit, or a three way system comprising a Direct Radiator, 15" LF Unit and horn loaded High Frequency Unit.

The Direct Radiator is accommodated in the cut out marked "A", the 15" LF Unit is mounted in the cut out marked "B", while the horn loaded unit is incorporated in the cut out marked "C".

When the Direct Radiator is used as a mid-range and High Frequency unit or as a mid-range only unit, it should be enclosed from the rear by the box marked "D". This should be lightly filled with glass wool, kapok or other damping material. It will, of course, be appreciated that the cut outs not occupied by loudspeaker units should be suitably blanked off.

It is most important that the damping shown in the drawing of the cabinet enclosure should be generous and approximately to the proportions indicated. It may be conveniently fitted by containing glass wool or kapok with butter muslin or scrim to form a pillow. The material used for constructing the cabinet is not critical providing the finished enclosure is rigid. This rigidity may be obtained either by using very heavy timber, or alternatively by using rather lighter panels, together with adequate cross bracing.



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