

TANNOY.

Integrated
Loudspeaker
Systems



Technical
Manual for
Arden
Berkeley

Owners Manual for Arden Mark II and Berkeley Mark II

The loudspeakers you have just purchased have been designed and built with the care you would expect from a company which has been involved in acoustical manufacturing for over 50 years. Both the Arden and the Berkeley incorporate a 15" version of the famous Tannoy Dual Concentric system which probably is the

most widely used monitor in the studios of the world.

Please spend some time reading this manual so that you may realise the full capabilities of your Tannoy loudspeakers and thereby obtain maximum enjoyment from all kinds of musical programme material.

Components

Integrated Drive System

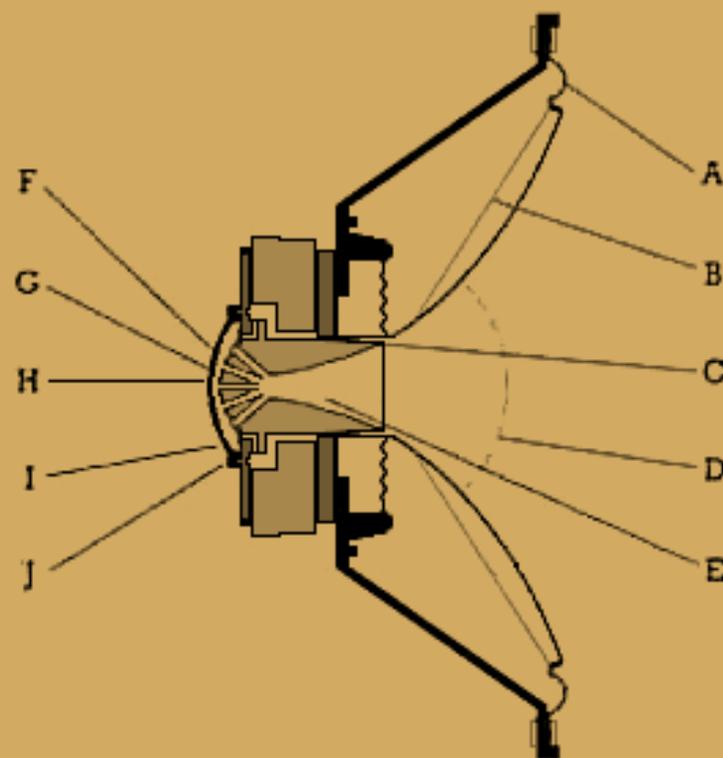
The Tannoy Integrated Drive System consists of a direct radiator bass unit and a high frequency horn-loaded compression driver both located concentrically within the same frame and magnet assembly, this is why it is known as the dual concentric system.

Bass Unit

This is a low resonance speaker with a 2" high temperature voice coil. The unique Girdacooustic reinforced cone ensures true piston action and smooth performance extending well into the midrange region.

Treble Unit

High frequencies are reproduced by a horn-loaded compression driver utilizing a duralumin diaphragm and a 2" diameter aluminium voice coil.



Crossover Network

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

Tannoy crossover networks are of the highest quality; capacitors are non-polarized, solid dielectric types for low losses and close tolerances; resistors and inductors are very generously rated; and all components are assembled on a fibreglass printed circuit board for maximum reliability.

Enclosures

Tannoy enclosures are solidly constructed from high density particle board and are lined with acoustic foam to absorb reflections and eliminate standing waves and bitumen to damp mechanical resonance. The exposed natural woodgrain surfaces of each enclosure are of American Walnut veneers. The cabinets are carefully hand-rubbed with oil and wax, which enhances the richness of the wood and affords excellent protection. Both the Arden and the Berkeley are braced internally to reduce spurious resonances which can occur in large panel areas, and ported to provide low frequency loading thereby reducing distortion and extending bass response.

A Rolled surround for stability in low bass response

B Unique ribbing virtually eliminates cone break-up ensuring smooth response and extraordinary high power capacity (DU 315 & DU 385)

C High temperature voice coil

D Dustproof, acoustically transparent sealing dome.

E Concentric HF horn (completed by curved LF cone.)

F Phase-compensating multiple throat for extended and smooth HF response.

G Acoustic balance cavity for reduced distortion

H Precision contoured high frequency diaphragm.

I Aluminium voice coil conductor for high power capacity and superb HF response.

J Exclusive magnetic shunt for increased LF flux.

The Tannoy Arden and Berkeley loudspeakers can safely be driven by an amplifier with a power rating equal to the power handling capacity of the system—i.e. 85 watts RMS. A more powerful amplifier can be used with the system if precautions are taken to avoid conditions such as switch-on surges and amplifier clipping which may result in momentary peaks of power greatly in excess of the specified ratings.

Amplifier Power