

## Specifications

	HPD 385A	HPD 315A	HPD 295A
Power Handling Capacity in Watts continuous programme	85	60	50
Nominal Impedance in ohms	8	8	8
Sensitivity : input Watts at 400 Hz required to produce 96dB at 1 metre in an anechoic environment	3	5	7
Cross over Frequency at 12dB per octave	1000 Hz	1000 Hz	1000 Hz
<b>Low Frequency Direct Radiator</b>			
Nominal Diameter mm (inches)	385 (15)	315 (12)	295 (10)
Voice Coil Diameter mm (inches) (Copper wire)	50 (2)	50 (2)	50 (2)
Bl Factor in gauss/cm	$19 \times 10^6$	$16 \times 10^6$	$16 \times 10^6$
Fundamental Resonance Hz	20	20	22
<b>High Frequency Compression Driver</b>			
Duralumin Diaphragm Diameter mm (inches)	50 (2)	50 (2)	50 (2)
Voice Coil Diameter mm (inches) (Aluminium Wire)	50 (2)	50 (2)	50 (2)
Horn Cut-off Frequency in Hz	500	500	500
Shipping Weight Kg (lbs)	14 (31)	8 (17½)	7 (15½)

## Enclosures

The enclosures shown in the following pages are the equivalents of those used in the Tannoy Integrated Loudspeaker range – the Arden, Berkeley, Cheviot, Devon and Eaton. The proportions of each may be altered by up to 25% as long as the internal volume remains relatively unchanged. All are ported to provide low-frequency loading, although the ports may be omitted and a totally sealed cabinet constructed if the tighter, infinite baffle sound is preferred. Any other forms of enclosures, such as horn-loaded types and labyrinths are not recommended. Enclosures should be solidly constructed from 18mm ( $\frac{3}{4}$ " ) high-density chipboard (also known as 'particle board ') or plywood, using sufficient glue to ensure that all joints are airtight when dry.

The sub-baffles called for in the drawings permit the Integrated Drive Systems to be recess mounted. This configuration places the front of the transducer very nearly in the same plane with the baffle surface, thus avoiding tunnel and diffraction effects that might adversely affect frequency response. The sub-baffles should be glued in place to avoid air leaks and further secured with wood screws.

The floor-standing cabinets should be braced internally, front-to-rear as shown, to reduce the spurious resonances which can occur in large panel areas. Internal surfaces of all enclosures should be lined with 2" thick fibreglass wadding (sold in rolls for thermal insulation) to absorb reflections and eliminate standing waves. The base detail on the floor models may be modified as desired.

Grille frames should be made from 12mm ( $\frac{1}{2}$ " ) chipboard or plywood, painted black and covered with an acoustically transparent, open weave cloth. Holes must be cut in the frame at appropriate locations to provide an acoustical opening in front of the port area and for clearance around the network knobs. A grille frame must be easily removable to allow access to the crossover controls. One way of doing this is to use 'Velcro' hook and pile fastening pads, stapled and glued at various points on the frame and positioned to mate with complementary pads similarly fixed to the front baffle of the enclosure.

## Amplifier Power

Any Integrated Drive System can safely be driven by an amplifier with a power rating equal to the power handling capacity of that system, i.e; 85 Watts RMS for the HPD 385A, 60 Watts RMS for the HPD 315A, and 50 Watts RMS for the HPD 295A. A more powerful

amplifier can be used with a system if precautions are taken to avoid conditions such as switch-on surges and amplifier clipping which may result in momentary power peaks greatly in excess of the specified ratings.

## Connections to Amplifier

A loudspeaker should be connected to the amplifier with suitable low-resistance twin-cable. Ordinary lighting flex is suitable for distances of up to 50 feet – for greater distances heavier gauge wire is recommended.

Connection to a system is by two spring-loaded terminals on the connector panel; one Red (+) and other Black (–). The red terminal should be connected to the amplifier (+) output and the black terminal to the amplifier (–) output (sometimes designated as 'common')