

TSW SERIES ENGINEERING INFORMATION

The TSW-218DP is a digitally self-powered horn-loaded subwoofer incorporating Turbosound's patented loading principles, designed for use in applications requiring accurate and powerful reproduction of low frequency energy at very high levels. Its ability to reproduce program material with such integrity makes the TSW-218DP applicable for both fixed or mobile systems which require energetic low frequency response without stress or enclosure corrective equalisation.

It is primarily intended for large-scale concert touring and festival applications, although it is also ideally suited to large nightclubs or applications that demand no-compromise audio quality.

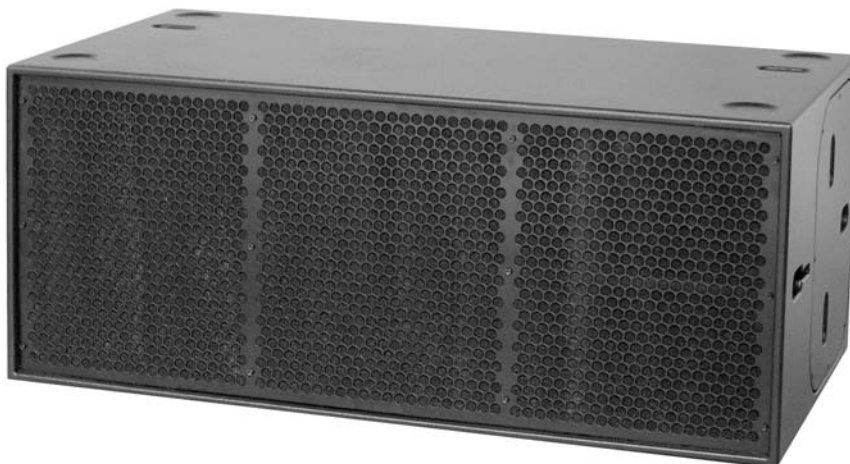
The TSW-218DP features a lightweight Class D amplifier, utilising revolutionary 96kHz DSP technology to give operating efficiency in excess of 90% and delivering 2500 watts in bridge mode with abundant headroom into the two LF drivers. Four selectable presets provide a choice of crossover points and delay settings depending on application. A Neutrik™ Powercon connector provides mains input and 3-pin XLR's are used for input and parallel link signal connections. Two RJ45

network connectors are provided.

The TSW-218DP incorporates the TurboBass device, which employs a high-velocity partial horn-loading technique, giving precise cone control at high power levels.

The proprietary 18" drive units are the result of a development project that has produced a unique neodymium motor system. The magnet system drives a dual-spider split 4" voice coil which allows continuous BL (magnetic force) with displacement, ensuring optimum control from the motor assembly and very low harmonic distortion even at the excursion limits. The 4" coil also means a lower system moving mass than equivalent 5" units, resulting in higher sensitivity and exceptional response to fast transient peaks.

The TSW-218DP is capable of outstanding electrical to acoustic power conversion (104dB at 1w/1m from a single unit). Optimisation of the stepped horn flare produces a dramatic increase in sensitivity when multiple units are coupled, with eight cabinets giving 110dB (1w @ 1m) output with flat frequency response down to 32Hz.



FEATURES

- Digitally self-powered**
- Modular sub coupling**
- Stackable cabinet**
- Neodymium magnets**
- High definition bass**
- 800 watt 18" drivers**

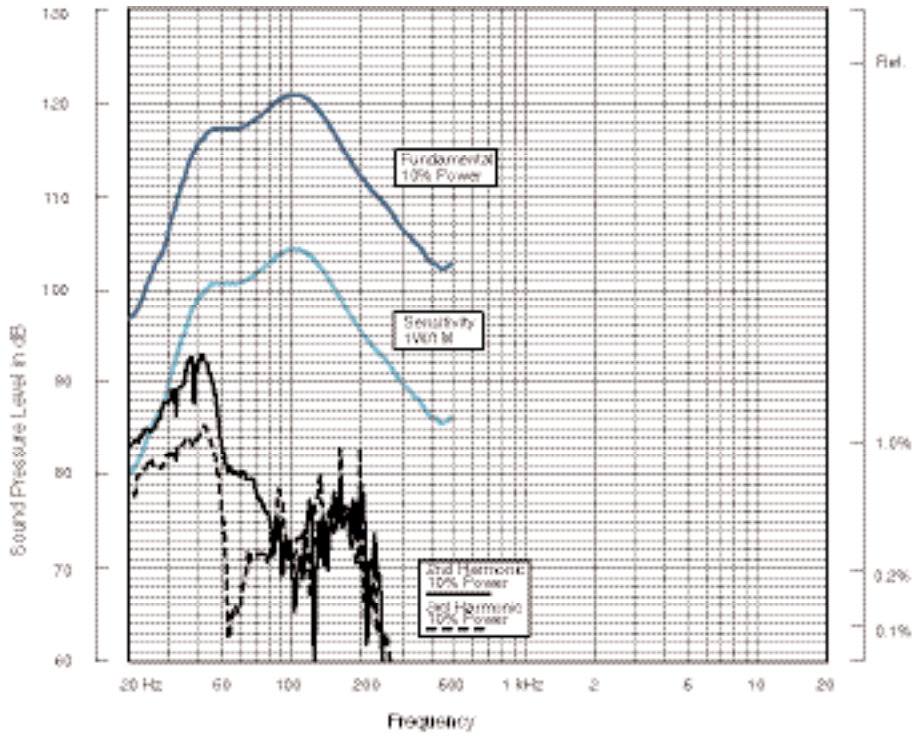
APPLICATIONS

- Festivals**
- Concert Touring**
- Nightclubs**

DIMENSIONS (HxWxD)	574mm x 1400mm x 770mm (22.6" x 55.1" x 30.3")	
NET WEIGHT	113kg (248.6 lbs)	
COMPONENTS	2 x custom 18" (457mm) neodymium LF drivers on a TurboBass™ device	
FREQUENCY RESPONSE	35 - 150Hz ±4dB Recommended operational range below 250Hz	
CALC. MAXIMUM SPL	136dB continuous, 142dB peak	
AMPLIFIER	TYPE:	Class D inc SMPA and networked DSP
	POWER OUTPUT:	2500 watts continuous @ 4 ohms (1kHz, 0.01% THD)
	DYNAMIC RANGE:	110dB
	INPUT CLIP:	10dBu
	BANDWIDTH:	20Hz - 20kHz ±0.5dB
	POWER REQUIREMENTS:	100V to 240V AC @ 50/60Hz
CONSTRUCTION	18mm (3/4") birch plywood throughout; rebated, screwed and glued. Finished in black textured paint. Four recessed carrying handles. Four heavy duty wheels. Four stacking feet	
GRILLE	2mm powder coated mild steel backed with reticulated foam	
CONNECTORS	Input: (1) XLR female, Link: (1) XLR male, pin 2 hot; Neutrik Powercon mains; (2) RJ45 network ports	
SPARES AND ACCESSORIES	LS-1815	457mm (18") LF loudspeaker
	RC-1815	Recone kit
	MG-TSW218	Replacement metal grille
	TSW-218 CASTOR	Heavy duty wheel
	XPODHP	Amplifier module

All measurements are actual figures taken from real-time testing using stated inputs, free from any filtering or weighting. Therefore actual figures may significantly exceed that of other manufacturers with higher published weighted ratings.

**FREQUENCY
RESPONSE**



**ARCHITECTURAL
& ENGINEER'S
SPECIFICATIONS**

The loudspeaker shall be of the digitally self-powered subwoofer type consisting of two 18" low frequency loudspeakers loaded with a patented TurboBass™ device together with a Class D amplifier module with DSP. Performance specifications of a typical production unit shall meet or exceed the following: Frequency response, measured with a swept sine-wave input, shall be flat within $\pm 4\text{dB}$ from 35Hz to 150Hz. Maximum SPL (peak) measured with music program input at stated amplifier power (below 100Hz) shall be 142dB. Dimensions: 574mmH x 1400mmW x 770mmD (22.6" H x 55.1" W x 30.3" D). Weight: 113 kg (248.6 lbs). The loudspeaker system shall be the Turbosound TSW-218DP. No other loudspeaker shall be acceptable unless submitted data from an independent test laboratory verify that the above combined performance/size specifications are equalled or exceeded.

DIMENSIONS

