

# PURPLE PRO AUDIO

## **P2SB**

P<sup>2</sup>SB is a dedicated sub bass and bass cabinet capable of low frequency sound reproduction at very high sound pressure levels. It uses a custom designed RCF loudspeaker component in a hybrid horn configuration to produce fundamental output from 25Hz through to 180Hz. The P<sup>2</sup>SB is intended to be used with our P<sup>2</sup>mtx point source or P<sup>2</sup>I line source cabinet for large format concert reinforcement, either in standard stacks or cardioid bass line arrays.

The unit houses:  
1 x 18" 600 Watt AES

### **Design features**

It is a common misconception that you need to cram as many drivers into a cabinet as possible in order to realise the greatest output. P<sup>2</sup>SB has only one driver, but because both sides of the driver effectively appear in phase at the output it is as efficient as two, this means you get twice the output while using half the amplifier power. In addition the P<sup>2</sup>SB has a remarkably small footprint at 800mm x 610mm (2 x 2'8"), this means that large numbers of this cabinet can be stacked or arrayed in very little space. The 18" custom driver is also Horn loaded in such a way that power compression is virtually eliminated, this is achieved through very careful positioning of the vented magnet structure to aid cooling of the voice coil.

The cabinet can be used singly for small-scale reproduction, but is intended to be used in pairs in order to realise full bandwidth output. P<sup>2</sup>SB can be configured in cardioid mode to produce highly directional bass arrays, with virtually complete cancellation behind the array, leaving your stage clear of bass interference and increasing you the power where you need it, in the arena. P<sup>2</sup>SB benefits from incredible low frequency output down to 25Hz, we have even shaken plaster off ceilings with 22Hz sine waves during testing. No other compact cabinet gives you such sub bass performance.

### **Cabinet**

P<sup>2</sup>SB is made of 18mm Baltic birch and is rebated, glued and screwed every 75mm for excellent structural integrity. The cabinet benefits from highly effective internal bracing, leaving no point further than 125mm from the nearest brace. This means the cabinet is extremely rigid, with virtually no panel resonance, meaning every ounce of power is used to vibrate the air, not the cabinet. The 18" driver is loaded with a long throw horn that supports the driver fully at resonance. The cabinet comes with two heavy-duty wheels, steel bar handles and a tough powder coated steel mesh grille, weatherproof foam interior and a twin NL8 connector dish.

### **Electrical**

The connectors are located on the rear panel and are Neutrik NL8 speakons.

Channel 1 - 18"

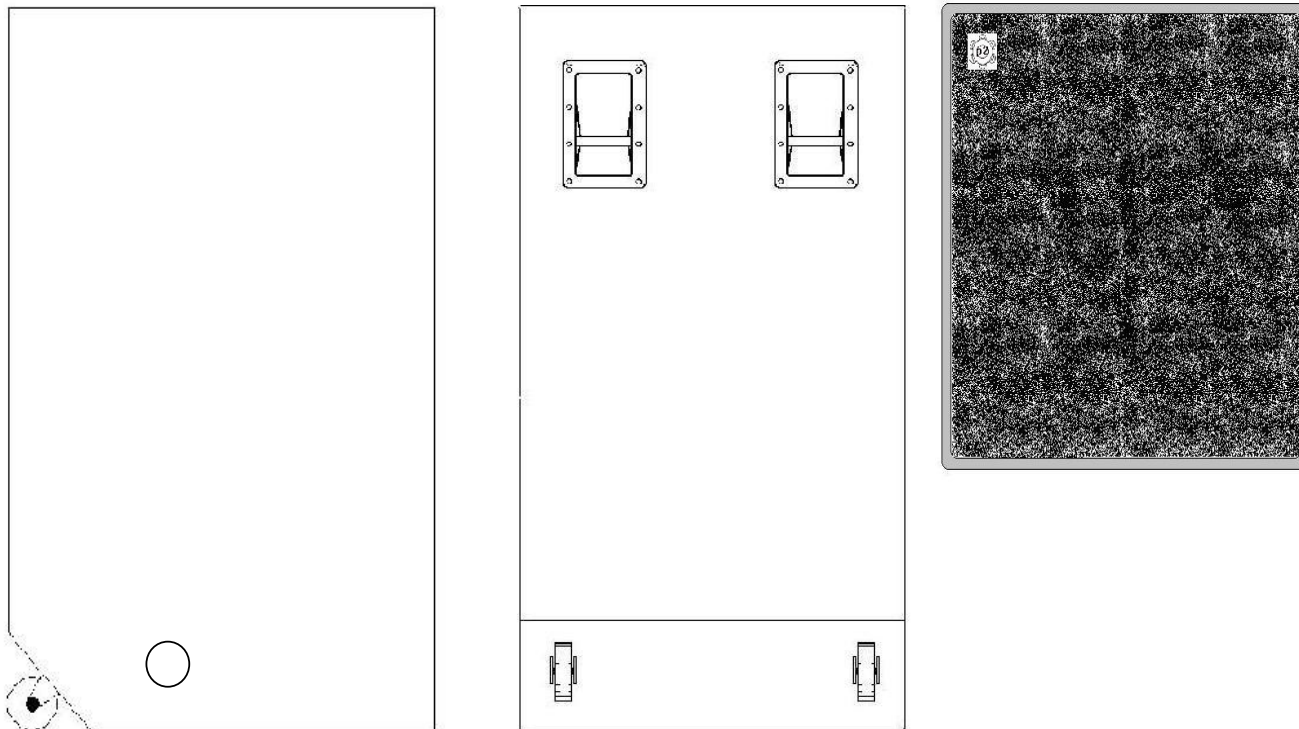
### **Set-up**

The cabinet will produce 133dB SPL at rated output and this figure increases as the units are stacked. We recommend that the SB is arrayed in lines to achieve high SPL long throw output without destructive effects in the horizontal plane. In this way SPL's in excess of 148dB SPL can be achieved. We strongly recommend the use of XTA® digital loudspeaker management systems for use with the P<sup>2</sup> series enclosures.

## Design Philosophy

Our ideology is very simple: We pay very close attention to what our designs sound like at every stage of the development process. We believe that too many manufacturers invest little or no time actually listening to what it is they are building. Touring engineers and musicians are invited to listen to our designs before they are complete, and in this way we can solve any problems at an early stage. This level of refinement means that the enclosures sound as good as possible before any equalisation or processing to further improving their fidelity. Purple believes loudspeakers should be designed and made with the same love and attention to detail as the music they reproduce. The P2SB is designed for maximum Power efficiency, Space efficiency and Thermal efficiency.

## Purple Pro Audio P2SB



*Diagram of P2SB showing, front, rear and side elevations*

## Specifications

Model number	P2SB
Type of cabinet	Bass / Sub bass
Construction	18mm Multiply Baltic Birch
Total cabinet power handling	600Watts AES,
Driver compliment	1 x 18"
Frequency response +/-3dB	25Hz-180Hz
Recommended crossover points	25Hz HPF 150Hz @ 18dB/Oct min roll off
Type of loading	Hybrid re-entrant Horn
Weight	25Kg / lbs
Connectors	2 x Neutrik NL8 (ch1 18")
Paint	Weather resistant textured finish
Fly ware	N/A