

FBT PSR Series Passive and Powered Speakers

The New PSR Active Speaker Systems pack premium drivers, bi-amplification, DSP digital signal processors and PC network capability into a plywood enclosure with a Black Tour Grade Scratch & Scuff Resistant paint finish.

Closely following FBT's philosophy of unparalleled levels of quality and reliability, the FBT PSR Series Speakers are ideal for touring sound reinforcement and permanent installation applications. PSR Series Speakers are also available in passive versions.

The New PSR bi-amplified line is inspired by a design philosophy that has reached its expressive zenith in the **High Dynamic Device System (HDD)**.

The Benefits of HDD:

HDD is an integrated "intelligent" amplification system that combines PWM low frequency and Class G high frequency amplifiers along with a proprietary Digital Signal Processor for complete system control via a PC and dedicated software.

The HDD DSP system provides the following desired functions:

Time domain equalization for both alignments of frequency magnitude and time, energy load control to the speakers, woofer excursion control, optimal polar response through a 48dB/oct built-in crossover.

In addition, the PSR active systems are equipped with the following control panel functions:

8 equalization preset dipswitch settings and subwoofer system integration, a 4-step input sensitivity rotary control, dip-switch delay settings, ground lift switch.

Through the dedicated PC software and network interface (optional), the "intelligent" HDD System can also provide: monitoring of the amplifiers operating status, heat sink temperatures, input levels and system overloads, remote controlling of system on/off, input sensitivity and preset selections, delay time adjustments, output volume, 4-band parametric equalizer.

The key concept behind the entire PSR active speaker project is DYNAMICS!

HDD's sophisticated dynamic and energy control algorithms ensure total protection of all system components, without sacrificing the "DYNAMICS" of the musical source in order to protect the components.

HDD lets Live Music sound: ALIVE ! Despite PSR's compact dimensions, the integrated HDD system allows for sound reproduction with a much higher dynamic range than in conventional powered systems, yet without reducing the DYNAMICS or triggering thermal shutdowns that can be commonplace with many other active speaker systems. The result is a very substantially increased perception of sound quality.

All models in the Active BI-AMPLIFIED range feature:

DSP Digital Signal Processing with crossover, time and frequency domain equalization, delay, energy control, dynamic low-frequency equalization and network capability

24bit 48KHz very low noise A/D & D/A converters.

FIR digital equalization - Finite Impulse Response -which corrects not just the frequency response (as with conventional equalizers) but phase linearity to produce an impulse response very close to the ideal. The result is significantly improved precision, emission coherence and stereo image.

48dB/oct Linkwitz-Riley crossover to minimize interchannel crosstalk and improve polar response.

Dynamic equalization of bass frequencies ensures the maximum sound pressure while limiting woofer cone excursion.

'Energy control' algorithms which limit amplifier power to the maximum power handling of the speakers while maximizing dynamics.

90% efficient and high peak power PWM Low Frequency amplifier.

Class G High Frequency amplifier: with high efficiency and superb sound quality.

Natural convection cooling of the power units. The absence of fans improves reliability and reduces noise.

Connection panel with XLR signal input and link connector, 4-step gain control, GND lift, RJ45 input and through connectors for digital networks, 2 sets of dipswitches for delay control - 63.75m (209.15ft) in 25cm (9.84") steps - and the choice of 8 equalization presets for special speaker applications or to adapt speaker performance to match the sound reinforcement environment. DIP switches to activate a high pass filter in the satellites when using with a subwoofer or to invert the phase in the subwoofer.

Digital network connection for PC software control. For remote control of 4 band parametric equalizers, delay, memory presets, volume, ON/OFF, and input sensitivity. Monitoring of: operating status, heat sink temperature, input level and overloads

AC Power supply with Neutrik® POWERCON Input and Output connectors for power linking between cabinets, thus avoiding the need of long power cords.

Sturdy "Anti-Resonant" protective metal grille.

All models in the PSR PASSIVE range feature:

Internal Dual-Mode passive filter with inspection window to view the current configuration. Facility for **Full-range mode** operation with the use of just one amplifier or in **Bi-Amp** mode to exploit the full capabilities of the drivers, excluding the internal filter and driving woofers and high frequency units separately with two amplifiers with appropriate signal processing.

"Asymmetrical" type passive filters designed with interactive process to optimise and align the characteristics of the speakers. This guarantees a broad and coherent response over the full coverage angle with mid-range frequencies that are powerful but never oppressive, ensuring optimum speech intelligibility.