



élite
Powered Series

EF500P

Overview

The EF500P redefines performance in a high-power professional active loudspeaker enclosure. Utilizing the popular élite EF508 as a base, and adding a total of 1000 watts (program) of bi-amped power and advanced signal processing, the EF500P is destined to set a new standard for active loudspeaker design. The woofer or low frequency amplifier uses Class D switching technology to reduce overall weight of the amplifier section. This solution allows the horn to produce loud clean transients to keep up with the high output of the woofer. The two-tier amplifier technology isn't typically seen in a product like this, however we found the advantages (lower weight, more efficiency, higher headroom and lower operating temperature) made it a perfect choice for powering the top end.

This combination of amplifier technologies keeps distortion to a minimum while reducing the heat dissipation to a level low enough to eliminate the need for heavy heatsinks for the overall power stage. As an additional advantage, our unique combination of two-tier and Class D amplification has reduced extraneous heat to the point that EF500P can easily be used in any orientation, and close to walls, floors and in close arrays with multiple cabinets. We have found that competitive active loudspeakers with large finned heatsinks need to be operated vertically and with clearance to ensure proper heat dissipation and ventilation. Since the EF500P is ideal for flying in large clusters and in point source concert sound systems, our designers took extra care making sure that in tight clusters overheating would not be an issue.

We've also found an opportunity to tweak the electronics for maximum overall speaker performance and protection. Borrowing some ideas from our powerful and popular TX Series PA systems, the limiters used in the input and crossover stages are a complex combination of gain reduction and sweeping filters. As the EF500P is being pushed to its maximum input / output levels, it's advanced filtering begins rolling off unnecessary subsonic frequencies. In addition the processing protects the individual components ensuring failure free operation even after long term operation at close to maximum output levels. The filter has remarkable (less than 70ms) response times, allowing the system to constantly be retuning itself to make sure the output is as clean, as loud and as clear as possible at any given moment. This is achieved without negatively affecting the overall sonic quality of the cabinet. This ensures that the essential part of any mix, like the vocals or solo instruments, come out clean and clear when the cabinet is being operated at the extremes of power and woofer excursion. Extremely fast and accurate limiting is in place to protect the speaker components.



The EF500P has a built in mixer allows the loudspeaker to be used directly with a microphone and / or line source. The loop output allows additional active cabinets to be driven from one cabinet's mixer stage, or a series of cabinets to be driven from one source. If desired, the end user can combine a pair of the EF500P's using the mixer inputs on each cabinet and coupling the loop outputs. In this simple example you would have the ideal presentation system with two microphone inputs, two line inputs optimized for CD, Cassette or laptop computer audio source, complete within two speaker cabinets. Many of our active cabinets can be linked together but a maximum of three 'mixers' can be active at any one time. (Making three mic sources and six line sources available in any three or more cabinet array). The microphone input has equalization and high pass filtering appropriate for vocal applications. The trim control allows looped cabinets to be individually adjusted in level. This is invaluable in applications where large numbers of cabinets are used such as clusters or in trade show applications or when EF500P's are used as repeater cabinets or for side fill. The 100 Hz high pass filters allows the EF500P to be used more efficiently with any active subwoofer.

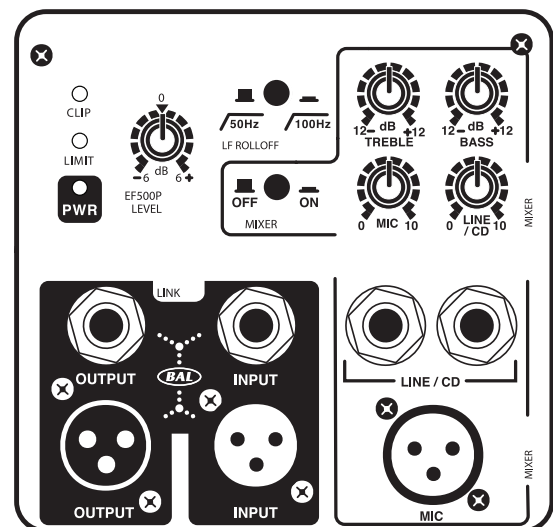


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Features

- Integrated 1800 Watt Amplifier (Peak - 1000 Watts Program)
- Max SPL 133dB Peak (127dB Continuous)
- Ultra-clear reproduction throughout bandwidth
- True 2-inch Titanium diaphragm horn driver
- Proven low distortion / high power handling 15-inch woofer
- XLR and TRS inputs / outputs for easy connection and looping
- Multi-input source mixer for direct inputs
- Two way overall EQ controls
- Integrated flying hardware (3/8" threaded holes)
- Tough, full length metal grille
- Recessed Mixer panels
- Made in Canada



EF500P Rear Panel



Specifications

System Type	2-Way
Active or Passive	Active
Program Power (Watts)	1000 Watts (1800 Watts Peak)
Max SPL (dB)	133dB Peak (127dB Continuous)
Frequency Response (Hz +/- 3dB)	50 - 16k
Crossover Frequency (Hz)	2100
Driver Configuration	15-inch, 2-inch
HF Driver(s)	3-inch Titanium Voicecoil (2-inch exit)
HF Dispersion (°H x °V)	60x40
HF Protection	Thermal / Peak Limiter
LF Driver(s)	15-inch ceramic magnet w/4-inch voicecoil
LF Protection	Thermal / Peak Limiter
HF Amplifier Type	Class H
LF Power Amplifier (Watts)	650
LF Amplifier Type	Class D
Power Cable	Yes
Power Switch	Yes
Inputs - 1/4" Jacks	2 line inputs, 2 link (in/out)
Inputs - XLR	1 mic, 2 link (in/out)
Input Impedance (Bal/UnBal)	95kOhms / 90kOhms
Input Sensitivity (Vrms Sine)	+4dBv / 1.23V (+/-6dB with trim control)
Mixer Controls	+/- 6dB Trim control Mic Input w/level 2x 1/4" Line Input w/level Treble/Bass Tweak 100Hz HP Filter (LF Rolloff)
Corners	Black Metal
Feet	Plastic Glides
Included Hardware	3/8 inch x 9 (All Corners)
Bar Handles	2 Side
Pole Mount Adapter (1 3/8"-3.5cm)	1 Bottom
Enclosure Materials	15mm Baltic Birch Plywood
Grille	Heavy gauge perforated metal
Covering / Finish	Black Ozite (Carpet)
Optional Covering / Finishes	Black Ultrathane Paint (EF500PB) 18mm Birch
Dimensions (DWH xbackW COM inches)	14.5 x 18.6 x 28.2 x 11.1
Dimensions (DWH xbackW COM cm)	71.6 x 36.8 x 47.2 x 28.1
Weight (lbs/kg)	82.9 / 37.6

Specifications subject to change without notice