



ZV28-MK3

Double 18"
Powered
Subwoofer



CUTSHEET



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OVERVIEW

The BASSBOSS ZV28-MK3 Subwoofer is designed to bring you up close and personal with the boundaries of audible sound. Reveal notes unfathomable with other subwoofers, delivered effortlessly. Frequencies that push other systems to their limits are brought to life powerfully and smoothly. The ZV28-MK3 isn't just about hearing; it's about feeling the power of the music.

The ZV28-MK3 is a vented, direct radiating subwoofer with a substantial internal volume, tuned to a low frequency. Advanced design features such as anti-standing wave baffles and pass-through dampers help reduce upper resonances while oversized ports enhance low-frequency performance at high output.

The ZV28-MK3 is built to run at full throttle. The woofers are kept within safe thermal and excursion limits throughout their operating range regardless of input level. The design guarantees a consistently flat frequency response, with a pair delivering -3dB to an impressive 21 Hz. This performance is achieved without any need for equalization, and is available on demand at high levels in real-world scenarios.

Unlike other subs that may promise much but deliver little, the ZV28-MK3 actually performs as impressively in the field as it seems to on paper. Be cautious of loudspeaker systems that rely on bass-boost processing to meet their claimed frequency response, as they can often fall short when it comes to delivering quality sound at maximum power.

The ZV28-MK3 features a 5000W amplifier with an auto-sensing, globally compatible power supply that can run on input voltages anywhere between 90 and 250 Volts. Full output power is available on anything over 110V. The amplifier's peak-output voltage provides for intense high SPL hits while its sustained output is unparalleled in its ability to deliver the liquid lows. The amplifier is passively cooled via its external heat-sink and by woofer-generated air-flow through the port. When necessary, four blower-fans will engage to provide additional forced-air cooling capacity in more extreme conditions.

New to the MK3 are Neutrik powerCON True 1 TOP (Total Outdoor Protection) waterproof mains connectors. This permits the levels of multiple loudspeakers to be adjusted together

and yet independently from the levels of other groups of loudspeakers.

Electrical power is converted into the much more desirable acoustical power by two robust, neodymium motor, 18-inch woofers with massive 4.5-inch (115mm) voice coils. Neodymium magnets are lighter, and their higher intensity provides higher efficiency, so the result is a lighter and louder cabinet than those with ferrite drivers.

The MK3 features an all-new DSP. The comprehensive suite of processing includes high-pass and low-pass filters as well as multiple protection systems and limiters to prevent driver overload in as many ways as possible, including thermal, excursion and clipping. The five levels of protection actively prevent overheating of the voice coil, minimize long-term thermal compression and limit excursion. Because they operate in 5 different modes, the limiters are sophisticated enough to have a largely unnoticeable effect on the transient response and allow the subwoofer to deliver peak output safely.

The new DSP features an Ethernet interface. This can be used to control the cabinets from a computer or to load software or firmware updates. The ethernet connectivity in conjunction with the DSP board allows signal to be sent via Milan AVB. Firmware updates will provide access to this feature.

Within the software, multiple cabinets can be grouped together, allowing them to respond to commands simultaneously. This permits the levels of multiple loudspeakers to be adjusted together and yet independently from the levels of other groups of loudspeakers. In addition to individual and grouped level controls, presets can be loaded and signal levels and temperatures can be monitored. Each cabinet includes a two-port switch so multiple cabinets can be chained on the same data cable.

The MK3 DSP features storage capacity of up to 100 presets, eight of which can be accessed at the touch of a button with no need for a connected computer. The eight directly accessible presets are compatible with all the presets in the MK3 Top Boxes and are also compatible with previous generation tops and subs.

Specifications

Acoustical

Loudspeaker Description:	Extended Low-Frequency Dual 18 Inch Powered Subwoofer
Frequency Response (± 3 dB):	23 – 90 Hz 21 – 90 Hz (Pair)
Maximum Sustained Output:	135 dB SPL, 1m, 2pi, (half-space)
Max SPL (Peak)*:	141 dB
Nominal Dispersion ($^{\circ}$ H x $^{\circ}$ V):	360 x 360 - Cardioid mode available with multiple cabinets

Electrical

Amplification:	5000 Watts - Dual 2500 W Class D Amplifiers
Processing:	Integrated comprehensive DSP with high pass, low pass, phase alignment, limiting
Electrical Connector, Amp:	Neutrik PowerCON True1 TOP (IP65 Waterproof)
Electrical Connector, Mains:	Standard US 3-pin 120V electrical plug: NEMA 5-15 (Edison)
Voltage Operating Range:	100-250V
Current Draw, Nominal:	9A @ 120 volts, 4.5A @ 240V
Signal Input Connector:	XLR-F
Signal Output Connector:	XLR-M - full-range direct pass-through

Physical

Enclosure Type:	Direct radiating vented enclosure, optimally tuned for extended low frequency response with high sensitivity and high power handling
Transducers:	Two 18" (457 mm) neodymium motor woofers; 4" (100mm) copper winding voice coils
Cabinet Construction:	18mm Baltic Birch plywood, extensively braced. Equipped with 8 handles and interlocking rubber feet
Exterior Finish:	Waterproof, bonded high-pressure polyurea
Grille:	Perforated, powder-coated steel
Dimensions (HxWxD):	22.5" x 42" x 42" (57.15 x 170 x 107 cm) 23.25" (59cm) high with feet
Net Weight:	235 lbs. (106.5 kg)
Shipping Weight:	265 lbs. (120.2 kg)

Optional

Transport Dollies:	Dolly cart with 4 locking casters and recesses to accept interlocking cabinet feet. Vertical for transporting 1 cabinet, horizontal for up to 4 cabinets
Covers:	Heavy-duty padded nylon transport covers for vertical or horizontal transport
Online Information:	bassboss.com/ZV28

*Peak output is calculated using "industry standard" techniques. These calculation methods create theoretical specifications that are inflated over what can actually be achieved. BASSBOSS real world output specifications are provided as "Maximum SPL" ratings, which reflect actual measured output levels.

Our proactive philosophy causes specifications to be subject to change whenever improvements are made.

Pre-Installed Onboard Presets

High-pass and low-pass filters with included phase compensation.

- Preset 1:** 20Hz Butterworth 24dB/octave high-pass filter to 65 Hz Linkwitz-Riley 24dB/octave low-pass filter
- Preset 2:** 20Hz Butterworth 24dB/octave high-pass filter to 70 Hz Linkwitz-Riley 24dB/octave low-pass filter
- Preset 3:** 20Hz Butterworth 24dB/octave high-pass filter to 75 Hz Linkwitz-Riley 24dB/octave low-pass filter
- Preset 4:** 20Hz Butterworth 24dB/octave high-pass filter to 80 Hz Linkwitz-Riley 24dB/octave low-pass filter
- Preset 5:** 20Hz Butterworth 24dB/octave high-pass filter to 85 Hz Linkwitz-Riley 24dB/octave low-pass filter
- Preset 6:** 20Hz Butterworth 24dB/octave high-pass filter to 90 Hz Linkwitz-Riley 24dB/octave low-pass filter
- Preset 7:** 30Hz Butterworth 24dB/octave high-pass filter to 75 Hz Linkwitz-Riley 24dB/octave low-pass filter (Good Neighbor Mode)*
- Preset 8:** Cardioid Mode** (Two subs forward - one back. Use only when cabinet is facing away from audience.)

*Preset 7 raises the high-pass filter to 30 Hz, reducing the level of the deepest bass notes. This provides an option to keep operators out of trouble with neighbors, venue owners or local authorities in the event of noise complaints.

**Preset 8 is the Cardioid mode setting. More information on using Cardioid Mode can be found on page 10.

- Preset 9:** 25Hz Butterworth 24dB/octave high-pass filter to 65 Hz Linkwitz-Riley 24dB/octave low-pass filter
- Preset 10:** 25Hz Butterworth 24dB/octave high-pass filter to 70 Hz Linkwitz-Riley 24dB/octave low-pass filter
- Preset 11:** 25Hz Butterworth 24dB/octave high-pass filter to 75 Hz Linkwitz-Riley 24dB/octave low-pass filter
- Preset 12:** 25Hz Butterworth 24dB/octave high-pass filter to 80 Hz Linkwitz-Riley 24dB/octave low-pass filter
- Preset 13:** 25Hz Butterworth 24dB/octave high-pass filter to 85 Hz Linkwitz-Riley 24dB/octave low-pass filter
- Preset 14:** 25Hz Butterworth 24dB/octave high-pass filter to 90 Hz Linkwitz-Riley 24dB/octave low-pass filter
- Preset 15:** 40Hz Butterworth 24dB/octave high-pass filter to 75 Hz Linkwitz-Riley 24dB/octave low-pass filter (Vinyl/Very Good Neighbor Mode)*
- Preset 16:** Cardioid Mode (One sub forward - one back. Use only when cabinet is facing away from audience.)

* Preset 15 reduces the low bass output even further by raising the high-pass filter to 40 Hz. Preset 15 should be used when playing vinyl records, dealing with noise complaints from deep bass, or when there is risk of infrasonic feedback.



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