



cut



VS21-MK3

Single 21"
Powered Subwoofer

Overview

The VS21-MK3 Single 21" Powered Subwoofer offers low-frequency extension similar to vented dual 18" subwoofers in combination with the hard hitting punch of horn loaded subwoofers.

The VS21-MK3 brings the world of extended low frequency together with the world of high-impact. You're no longer forced to choose either deep OR punchy, as the VS21 offers both.

The VS21-MK3 is a vented, short horn hybrid sixth order bandpass which features a massive displacement, long excursion 21" woofer, rear-loaded into a large acoustical volume that is tuned to a low frequency, and front-loaded onto a short horn. The vented enclosure section provides extended low frequency performance and the horn section provides increased upper frequency sensitivity and improved transient response.

The VS21-MK3 features a 2500W amplifier with an auto-sensing, globally compatible power supply that can run on mains supplies anywhere between 90 and 250 Volts. Full output power is available on anything over 110V. The amplifier's high 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, two 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. Waterproof mains connectors along with a totally isolated input connection section and cones that are waterproofed make the MK3 series the powered loudspeakers that can be used outdoors without fear of what the weather will bring. (Or used indoors without fear of what the parties bring.)

Electrical power is converted into the much more desirable acoustical power by a robust, neodymium motor, 21-inch woofer with a massive 4.5-inch (115mm) voice coil. 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.

New to the MK3 is an Ethernet interface. This permits the levels of multiple loudspeakers to be adjusted together and yet independently from the levels of other groups of loudspeakers.

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 the ControlBASS software settings updates. The Ethernet connectivity in conjunction with the DSP board allows signal to be sent via Milan AVB. Future settings 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	Single 21" self-powered 6th order hybrid subwoofer
Frequency Response (± 3 dB)	28 - 100Hz
Maximum Measured Output	135 dB 1m (half-space)
Max SPL (Peak)	138 dB 1m (half-space)
Nominal Dispersion ($H^\circ \times V^\circ$)	360 x 360 – Cardioid Mode Available with Multiple Boxes

Electrical

Amplification	2500 Watts Class D
Processing	Integrated comprehensive DSP. 96kHz sampling rate with 8 pushbutton presets. All presets include high pass filters, low pass filters, phase alignment, equalization and multi-stage limiting. Storage capacity for up to 100 presets
Electrical Connectors, Amp	Neutrik powerCON True 1 TOP IP65 rated waterproof connectors with pass-through outlet to connect additional loudspeakers. Inlet capacity limited to 15A or 1800W @ 120V total. Do not exceed the inlet capacity.
Electrical Outlet Connector, Amp	Neutrik powerCON True 1 female. Outlet capacity is limited to 10A or 1200W. Do not exceed the total capacity of the inlet connector.
Electrical Connector Mains	Standard US 3-pin grounding 120V electrical plug: NEMA 5-15 (Edison)
Voltage Operating Range	100-240V AC, 50-60Hz (Auto-sensing, auto switching universal supply)
Current consumption, nominal	120V 4.6A (nominal); 240V 2.3A (nominal)
Signal input connector	XLR-F
Signal Output Connector	XLR-M (Direct pass-through, unprocessed)
LAN connectors	EtherCON RJ45 (x2) with 2-port Ethernet switch

Physical

Enclosure Type	Vented, short-horn hybrid
Transducer	1 x 21 in. diameter (540mm) neodymium motor woofer with 4.5 in. (115mm) voice coil.
Cabinet Construction	CNC machined 18 mm Baltic Birch plywood with extensive bracing and dado joinery with 4 x 35 mm pole sockets, 8 x integrated handles, 12 rubber feet. 8 interlocking foot pockets. 6 X M10 threaded fly points
Dimensions (HxWxD)	36" x 24" x 36" (91.44 cm x 60.96 cm x 91.44 cm) - 37.5" (95.25 cm) high with feet
Net Weight	180 lbs. (82 kg)
Shipping Weight	210 lbs. (104 kg)
Exterior Finish	High-pressure, bonded polyurea coating. Rugged, waterproof, textured black
Grille	Perforated, powder-coated steel
Pole Sockets	4 (35 mm) pole sockets
Handles	8 Integrated handles
Feet	12 interlocking rubber feet
Suspension System	16 X M10 threaded fly points

Optional

Transport Dollies (H or V)	Birch plywood flat cart with 4 locking wheels and sockets to accept the cabinet feet. Vertical Transports 1 cabinet. Horizontal Transports up to 3 cabinets.
Cover	Heavy-duty padded nylon transport cover (Vertical)
Hardware	M10 Shoulder Eye Bolts, M10 Side-Pull anchors
GLL/Ease File	help.bassboss.com/portal/en/kb/articles/bassboss-ease-gll-files

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	27 Hz - 70 Hz
Preset 2	27 Hz - 75 Hz
Preset 3	27 Hz - 80 Hz
Preset 4	27 Hz - 85 Hz
Preset 5	27 Hz - 90 Hz
Preset 6	27 Hz - 95 Hz
Preset 7	40 Hz - 100 Hz (Vinyl/Good Neighbor Mode)*
Preset 8	Cardioid Mode (Use only what cabinet is facing away from the 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 in the Manual.

IMPORTANT - Update NOW!

ControlBASS Software + Settings Updates

For improved performance and stability, update your settings immediately upon receipt of your new gear!

Major new updates are available.

Download new settings updates and the ControlBASS app at bassboss.com/software

Instructions on using the software, linking to your computer for remote monitoring and control and updating the settings files will be provided when you sign up!

Register your gear
bassboss.com/support

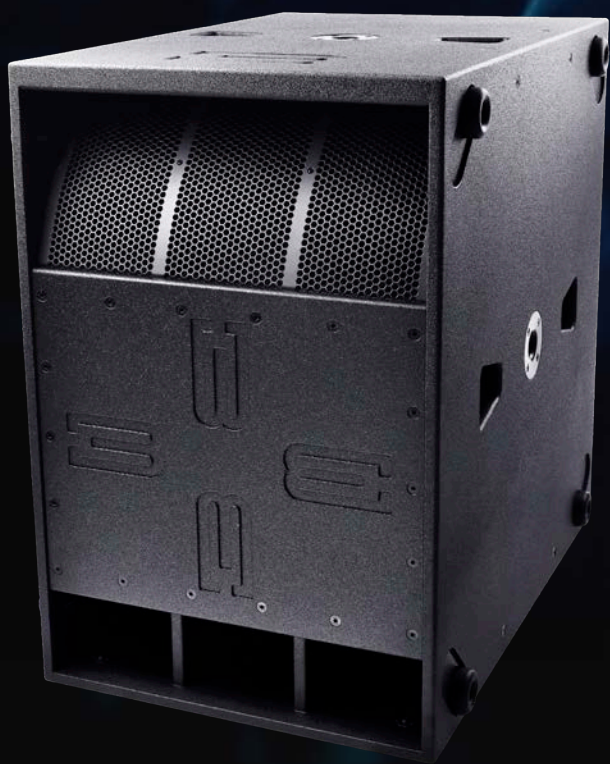
For more information and setup tips on how to get the best and most out of your system check out the Knowledge BASS help.bassboss.com

In order to achieve the flattest and smoothest frequency response, you should match the levels of your BASSBOSS subs and tops, and the low-pass filter frequency selected on the Subwoofer(s) should be closely matched to the high-pass filter frequency selected on the Top(s).

On the other hand, if you like your system to be bass-heavy, and you plan to turn your subs up louder than your tops, you may want to choose a preset on the tops with a high-pass frequency that's slightly above the frequency chosen on the subs. This will reduce the chance of an output peak in the crossover/overlap range and will allow slightly more output SPL from the tops.

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Need more assistance?
We're here to help.

help.bassboss.com