

**CUTSHEET**



**MAKARA-MK3**

**Double 21"**  
Powered Subwoofer



# MAKARA-MK3

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Powered Subwoofer

## Overview

You recognize that music continues to expand into the space below the limits of conventional subwoofers, down into the depths of frequencies, the depths of emotions. You don't want to be left behind, just on the surface, you want to plunge into these new depths and take your audiences with you on this exciting journey!

But you can't abandon those on shore, the music from before the technology allowed this downward expansion and the music that doesn't take advantage of or really need to reach these depths, so you still need to be able to do everything you've always done. You need something that's not ONLY going to do the deepest lows, you need something that's going to excel at everything all your previous subs have needed to do and ADD a whole new dimension.

This dimension is the one that surrounds us, envelops us, connects us, unifies us and makes us feel that we are all having the same experience. When the frequencies go lower, the wavelengths get longer and the music, quite literally, gets bigger.

If you want your performances to be bigger, the way to do that is to make the music bigger with these bigger waves. More people and more emotions can fit within bigger music. With the Makara, you can make the performances, the emotions and the impact of your system bigger without making your system too big to manage and without leaving anyone behind, except, perhaps, your competition...

The Makara-MK3 features 5,000W of amplification, 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 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 radial fans will engage to provide additional forced-air cooling capacity in more extreme conditions.

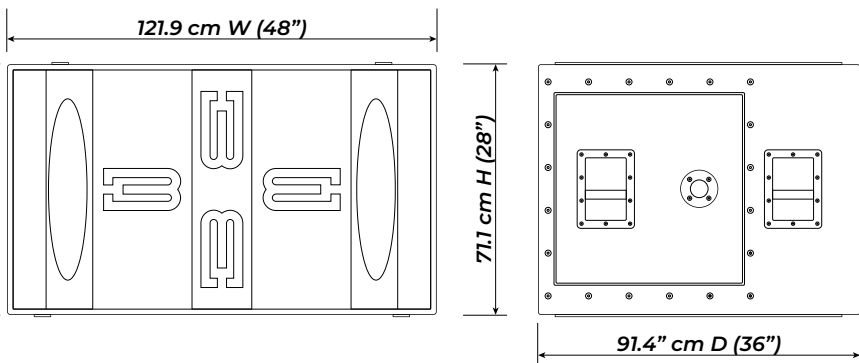
Amplifier power is converted into the much more desirable acoustical power by two high-sensitivity, neodymium motor, 21-inch woofers with 4.5-inch (115mm) high-BL voice coils. Neodymium magnets are lighter, and their higher intensity provides higher efficiency, so the result is a lighter and louder cabinet than those with ferrite drivers.

Our split-wound woofer coils create a more consistent force throughout the cone's range of movement, minimizing distortion and enhancing linearity at peak output.

The protection systems involve several techniques running simultaneously to effectively prevent thermal overload of the voice coils and limit excessive excursion. Reducing thermal saturation not only prevents burned voice coils, it also minimizes long-term thermal compression. Due to the sophistication of these multiple, independent yet simultaneous processes, the drivers can be protected while the actions of the limiters have virtually no noticeable effect on the transient response of the loudspeaker. Peak output can be achieved consistently, repeatedly and safely.

The Makara-MK3 is a hybrid 6th-order bandpass cabinet, utilizing a large vented volume and two short-horn sections to increase sensitivity in its upper operating range. The best way to describe the Makara experience is "Complete". The complete subwoofer experience includes effortless depth and plenty of "punch". The two drivers are loaded into a large acoustical volume that is tuned to a low frequency, and each is front-loaded onto a short horn. The vented enclosure section provides extended deep bass performance and the horn section provides increased upper-frequency sensitivity and improved transient response.

The enclosures feature UHMW Polyethylene sliders on the top and bottom, with corresponding recesses in the opposite sides to facilitate interlocking the boxes when stacked. The available transport carts also feature recesses for the sliders to facilitate secure transporting.



# Specifications

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## Acoustical

Loudspeaker Description:	Dual 21" Self-Powered 6th-order Hybrid Subwoofer
Frequency Response ( $\pm 3$ dB):	23 – 100 Hz
Maximum Sustained Output:	140 dB SPL, 1 meter, half-space (ground plane)
Max SPL (Peak):	143 dB
Nominal Dispersion ( $^{\circ}$ H x $^{\circ}$ V):	360 x 360 - Cardioid mode available with multiple boxes

## Electrical

Amplification:	5,000 Watts - 2 x 2500 Watt discrete Class D amplifiers
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 apacity for up to 100 presets
Electrical Connectors, Amp:	Neutrik powerCON True 1 TOP - IP65 rated waterproof connectors
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 Draw, Nominal:	14A @ 120 volts - 7A @ 240V (average) with music program
Signal Input Connectors:	XLR-F
Signal Output Connectors:	XLR-M pass-through only
LAN Connectors:	EtherCON RJ45 (x2) with 2-port Ethernet switch

## Physical

Enclosure Type:	Vented/short-horn hybrid of 6th-order bandpass
Transducer:	2 x 21 inch diameter (540 mm) neodymium motor woofers with 4.5" diameter (115mm) CCAW split-wound voice-coils. Waterproof fiber composite cones
Cabinet Construction:	CNC machined 18mm Birch plywood with extensive bracing and dado joinery. 4 steel bar handles. 4 x 35mm steel pole sockets, 4 x interlocking UHMWPE sliders/feet.
Dimensions (HxWxD):	28" x 48" x 36" (71.12 cm x 121.92 cm x 91.44 cm) - 28.5" (72 cm) high with feet
Net Weight:	294 lbs. (133 kg)
Shipping Weight:	320 lbs. (145 kg) with pallet
Exterior Finish:	Weatherproof, black, textured, bonded, high-pressure polyurea coating
Grilles:	Perforated, powder-coated steel
Feet:	4 x UHMWPE sliders
Handles:	4 x Steel bar handles
Fly Points:	None. Ground-stack only.

## Optional

Covers:	Heavy-duty padded nylon transport covers for 1 cabinet
Transport Dollies:	Horizontal: 18mm Birch cart with 4 locking casters and recesses to accept cabinet sliders for use with one or more cabinets Vertical: 18mm Birch cart with 4 locking casters that interlocks to the rear of the cabinet
Online Information:	<a href="http://bassboss.com/makara">bassboss.com/makara</a>

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

# Pre-Installed Onboard Presets

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

**Preset 1:** 23 Hz - 60 Hz

**Preset 2:** 23 Hz - 70 Hz

**Preset 3:** 23 Hz - 75 Hz

**Preset 4:** 23 Hz - 80 Hz

**Preset 5:** 23 Hz - 85 Hz

**Preset 6:** 23 Hz - 90 Hz

**Preset 7:** 23 Hz - 95 Hz

**Preset 8: Cardioid Mode** (Use only what cabinet is facing away from the audience.)

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

**Additional presets are accessible through software.** See "How to Use the Presets" section for more information.

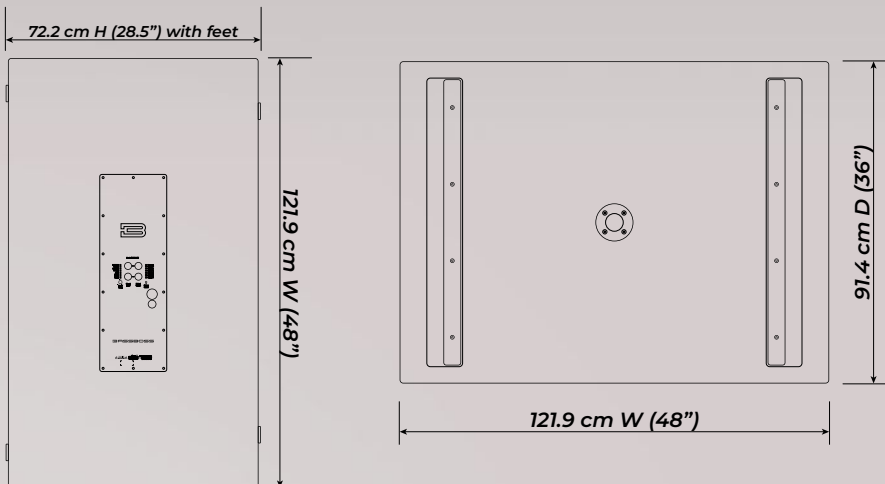
New presets will be available for download at [bassboss.com/software](http://bassboss.com/software) as they are developed.

To be notified when new presets are released register your gear at: [www.bassboss.com/support](http://www.bassboss.com/support)

Instructions on linking to your computer for remote monitoring and control: [www.bassboss.com/software](http://www.bassboss.com/software)

Information and setup tips about how to get the best and most out of your system:

[bassboss.com/edu](http://bassboss.com/edu)



# MAKARA-MK3

Quad 21"  
Powered Subwoofer



Need more assistance?  
We're here to help.

[bassboss.com/support](https://bassboss.com/support)