



CUTSHEET



AT212-MK3

Dual 12" 2-Way
Powered Loudspeaker



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Overview

The AT212-MK3 is a very high-output, self-powered, internally processed, bi-amplified, 2-way, broad-range loudspeaker. The cabinet is lightweight, the setup is easy and the output is smooth with a natural, musical character. The remarkable power and efficiency of the AT212-MK3 make it ideal for providers who want to deliver high sound pressure levels but prefer not to move heavy cabinets.

Intended for use with a subwoofer system to complete a 3-way active full-range system, the AT212-MK3 has a tall, slim design that allows the HF horn to stand above crowds when the cabinet is stacked on subwoofers. The light weight of the cabinet makes stacking by one person possible. The AT212-MK3 cabinets weigh only 99 lbs.

The AT212-MK3 is a vented cabinet that features two high-efficiency 12" woofers. The woofers feature 3.5" voice coils, Neodymium magnets, cast aluminum baskets and ultra-light cones. The compression driver also features a Neodymium motor structure with a 3" voice coil. It is mated to a 1.4" throat, cast aluminum horn. The horn is rotatable, providing 80 x 60 degree coverage for multiple applications including ground stack and horizontal or vertical flying.

The AT212-MK3 is the ultimate in plug and play, with universal voltage compatibility and no need for any outboard gear, other than a sound source. The built-in processing features presets that allow it to run in multiple configurations. Each preset offers advantages that suit specific applications and preferences.

Power is supplied by an amplifier that can deliver output peaks of 163V, to provide amazing dynamic resolution and impact. The fully integrated and comprehensive digital processing ensures smooth response and reliable operation thanks to meticulous filter alignments and five-stage limiters that protect the drivers from excessive excursion, thermal overload and clipping. The amplifier features a large heat sink and 2 temperature-controlled fans to ensure consistent operation, even under the most extreme conditions.

The cones are waterproofed to protect them from accidental exposure to moisture such as rain or spilled beverages. Weather resistant, IP65 rated power connectors, an internally sealed input section and waterproof-treated cones are provided to allow operation where rain might be encountered.

The cabinet is built from 18mm and 15mm Birch plywood. It features an 18mm baffle and 18mm top and bottom, with 15mm sides, port walls and braces, all assembled with dado joinery. The cabinet includes 4 steel bar-handles, 4 internally braced steel M10 fly points and a 35mm (1-3/8") cast metal pole socket. Although the AT212 cabinet is equipped with a 35mm steel pole socket, DO NOT use this speaker on a tripod or extension pole. This socket is to be used with a special, short section of pole to prevent it from moving once stacked on a subwoofer.

The MK3 features an all-new DSP. The comprehensive suite of processing includes multiple presets, each including multiple protection systems and limiters to prevent driver overload in as many ways as possible, including thermal, excursion and clipping. There are five levels of protection that 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.

Each preset has a specific high-pass filter frequency and alignment filters that ensure it's output is always phase coherent with any BASSBOSS sub. No matter which preset you choose, your BASSBOSS subs and tops will always play in harmony.

The full-range mode, Preset 1, provides response down to 50Hz (-3dB). Each successive preset filters the lows out at higher frequencies. As low-frequency demand is reduced, higher sound levels can be achieved, allowing the AT212-MK3 to be used above multiple subwoofers.

Not including Cardioid, there are up to 56 possible combinations when MK3 tops are used with MK3 subs, but don't worry, all are compatible. You can't choose a "wrong" preset, you simply choose the combination you like best.

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 new DSP board, will allow 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 groups of 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

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|----------------------------------------------------|------------------------------------|
| Loudspeaker Description: | High-output 2-Way Broad-range Main |
| Frequency Response (± 3 dB): | 50 - 18,000 Hz |
| Max Sustained Output: | 136 dB SPL, 1m |
| Maximum Measured Output: | 142 dB SPL, 1m |
| Nominal Dispersion ($^{\circ}$ H x $^{\circ}$ V): | 80 x 60 (Rotatable) |

Electrical

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|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Amplification: | 3200 Watt Two-Channel Class D Amplifier; 2400W LF - 800W HF |
| Processing: | Integrated comprehensive DSP including high-pass, low-pass, parametric EQ, phase alignment and multi-band limiting |
| Electrical Connectors, Amplifier: | Neutrik Powercon True 1 TOP in and through |
| Electrical Connector, Mains: | NEMA 5-15 (Edison) |
| Voltage Operating Range: | 100-240V AC, 50-60Hz (Auto-sensing, auto switching universal supply) |
| Current Draw, Nominal: | 4.6A @ 120 volts, 2.3A @ 220V (Average with music program) |
| Display: | LEDs for Power on/ready, Signal, -12dB, -6dB, limiter active, Thermal, Protect and LAN link active. Eight LEDs indicating selected preset |
| Signal Input Connector: | XLR-F |
| Signal Output Connector: | XLR-M pass-through |
| LAN Connectors: | EtherCON RJ45 (x2) with 2-port Ethernet switch |

Physical

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|-----------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Enclosure Type: | Self-powered, bi-amplified, 2-way broad-range. Direct radiating vented LF section, Horn-loaded HF section |
| Transducer, LF: | 2 x 12" diameter (300 mm) Neodymium motor woofer with 3.5" (88mm) voice coils |
| Transducer, HF: | 1 x 1.4" throat Neodymium motor compression driver with 3" (76mm) voice coil on cast aluminum 80 x 60 degree horn |
| Cabinet Construction: | CNC machined 18mm/15 mm multi-ply Birch plywood with internal bracing and damping 4 steel bar handles and a 35mm pole socket |
| Suspension Points: | 4 x internally braced M10 threaded mounting points |
| Dimensions (HxWxD): | 48" x 14.5" x 18" (122 cm x 36.4 cm x 45.4 cm) |
| Net Weight: | 99 lbs. (45 kg) |
| Shipping Weight: | 109 lbs. (50 kg) |
| Exterior Finish: | Rugged, weatherproof, black, textured, bonded high-pressure polyurea coating |
| Grille: | Perforated, powder coated steel |

Optional

| | |
|----------------------------|-------------------------------------------------------------|
| Shoulder Eye Bolts: | Use when flying the cabinets vertically |
| Side-pull anchors: | Use when flying the cabinets horizontally |
| Cover: | Heavy-duty padded nylon transport cover with velcro closure |
| Loop-through PowerCON TOP: | Power jumper for chaining power between adjacent cabinets |
| Online Information: | bassboss.com/at212 |

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: 45Hz high-pass filter

Recommended for use when no sub is available.

Peak output is restricted to prevent low frequencies damaging the loudspeaker.

Preset 1: 45Hz high-pass filter.

Preset 2: 55Hz high-pass filter

Preset 3: 65Hz high-pass filter

Preset 4: 75Hz high-pass filter

Preset 5: 85Hz high-pass filter

Preset 6: 95Hz high-pass filter

Preset 7: 105Hz high-pass filter

Preset 8: 115Hz high-pass filter

With their levels matched, when the low-pass filter frequency selected on the subwoofer is matched with the high-pass filter frequency selected on the Top cabinet, the smoothest frequency response should be achieved.

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

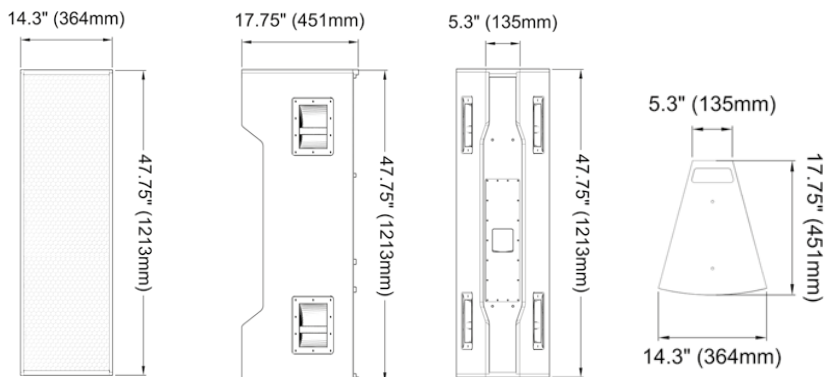
New presets will be available for download at bassboss.com/software as they are developed.

To be notified when new presets are released register your gear at: www.bassboss.com/support

Instructions on linking to your computer for remote monitoring and control: www.bassboss.com/software

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

bassboss.com/edu



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**Need more assistance?
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