



AT212-3K

2-Way Powered Top



User's Manual



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AT212-3K

2-Way Powered Top

High Output and Efficient ○

Excellent Sound Quality ○

Light Weight for Easy Set-Up and Transport ○

Wide Coverage Rotatable Horn ○

Description:

The AT212-3K Attuned Top is a 2-way, self-powered, bi-amplified loudspeaker for short to medium distance coverage. Simple to use, with high output, smooth sound and natural musical character. The light weight, power and efficiency of the AT212-3K make it ideal for providers who want to deliver high output but prefer not to move heavy cabinets.

Intended for use with a subwoofer system to complete a 3-way active full-range system. The AT212-3K has a tall, slim design allows the HF horn to stand above crowds when the cabinet is stacked on subwoofers and the light weight of the cabinet makes stacking easy for one person. One-man set up of a substantial system is made easy because the AT212-3K cabinets weigh only 89 lbs.

The AT212-3K is a 2-Way active, powered and processed mid-high loudspeaker. At only 89 lbs it is particularly well suited to applications where light weight is required. One-person set-up of a substantial system is easy and quick.

The cabinet is built of 15mm Baltic Birch plywood. It features an 18mm baffle, with dado joinery, 4 steel bar handles, and a 15 degree side angle trapezoid shape. The cabinet features 5 handles and 8 fly points, with 80 x 60 degree rotatable coverage for multiple applications including ground stack and horizontal or vertical flying.

Weatherized versions are available for outdoor installations. Rack-mounted amplification and waterproof input connections along with a fiberglass underlaid finish, silicone sealed gaskets, stainless steel grill and hardware and a hydrophobic grill cloth are optional.

The cones are waterproofed to protect them from accidental exposure to moisture such as rain or spilled beverages. Waterproofed woofer cones are included in all BASSBOSS loudspeakers. Weather resistant, IP rated amplifiers are available for applications where rain might be encountered, and fully weatherized RP (Rack Powered) versions are available for outdoor installations. The optional weatherized and weather resistant loudspeakers have the same components and outstanding acoustical performance as the standard versions.

The AT212-3K cabinets can be combined in arrays of 3 or more cabinets. The horn can be rotated and the boxes packed side-by-side to form arrays that cover 90, 120, 150, 180 degrees and more.

BASSBOSS cabinets are hand-built in the USA. The cabinet is built from 18 and 15mm Baltic Birch plywood. It features an 18mm baffle, top and bottom, with 15mm sides and braces, all assembled with dado joinery and advanced, composite adhesives. The cabinet includes 4 steel bar-handles and fly points. The rotatable HF horn provides 80 x 60 degree coverage for multiple applications including ground stack and horizontal or vertical flying. A 30-degree long-throw horn is available as an option for large arrays.

Created to stand up to intense usage. The cabinet is finished in an extremely rugged, black polyurethane coating. Drivers are protected by a black powder coated, perforated steel grill, and the amp is recessed into the back of the cabinet for protection from damage in transit.

The amplifier consists of 2 channels with a total of 3,000W. The amplifier features extremely high dynamic power capacity, with 150 Volts peak output per channel, along with high damping of >10000:1 Efficient, PFC power supply and class D output topology.

Exceptional dynamic resolution and detail along with precise control. It offers low current draw and light weight relative to the output capacity.

All the processing necessary for linear frequency response and phase coherent operation are pre-programmed into the DSP. With the comprehensive processing built in, BASSBOSS loudspeakers provide the ease of plug-and-play operation and the peace of mind that comes from knowing that the multiple limiter systems make to system virtually indestructible.

The AT212-3K is a vented cabinet that features two 12" woofers and a 1.4" throat, horn-loaded compression driver. The woofers feature 4" voice coils, Neodymium magnets, cast aluminum baskets and ultra-light carbon-impregnated cones. The compression driver also features a Neodymium motor structure with a 2.5" voice coil diaphragm.

AT212-3K 2-Way Powered Top | SPECIFICATIONS

Acoustical

Loudspeaker Description:	Full Range 2-way Active Vented, 80 x 60 degree (rotatable) coverage for multiple applications: ground stack and horizontal or vertical flying
Frequency Response (±3 dB):	45 – 18,000 Hz
Sensitivity:	LF: 107dB; HF:107dB
Maximum Sustained Output:	136 dB
Max SPL (Peak)*	139 dB
Nominal Dispersion (°H x °V):	80 x 60, rotatable to 60 x 80

Electrical

Amplification:	3000 Watt Two Channel Powersoft Class D
Processing:	Integrated comprehensive including high-pass, low-pass, parametric EQ, phase alignment and limiting
Electrical Connectors:	Neutrik PowerCON in and through
Voltage Operating Range:	90-250V. Auto-sensing, auto-switching, PFC universal power supply
Current Draw, Nominal:	3.6A @ 120 Volts; 2A @ 220 Volts, (typical, 1/8 max power)
Signal Input Connector:	XLR-F
Signal Output Connector:	XLR-M pass-through

Physical

Cabinet Construction:	18 mm Baltic Birch plywood, 15mm braced sides, dado joinery, 4 steel bar handles, 30 degree trapezoid
Enclosure Type:	2-way, Active, Full Range. Direct radiating vented LF section, horn-loaded HF section
Transducers, LF:	2 x 12" diameter (300 mm) neodymium motor woofer with 3.5" (89 mm) voice coils, waterproof cones
Transducer, HF:	1 x 1.4" exit, 2.5" (63.5 mm) diameter voice coil compression driver mounted to an 80 by 60 degree constant directivity horn
Dimensions (HxWxD):	47.75 in. x 14.3 in. front (5.3 in. rear) x 17.75 in. (121.28 cm x 36.32 cm [13.462 cm rear] x 45.08 cm)
Net Weight:	89 lbs. (40 kg)
Shipping Weight:	99 lbs. (45 kg)
Exterior Finish, Touring:	Weatherproof bonded high-pressure polyurethane
Exterior Finish, Installation:	Textured Epoxy Paint, Black or White
Exterior Finish, Weatherized:	Fiberglass underlaid UV treated bonded high-pressure polyurethane with silicone seals and stainless steel grill
Grill:	Perforated, powder-coated steel

Optional

Suspension Points:	Four x 3/8" – 16 TPI on centerline top and bottom
Flying Array Bracket:	Allows arrays of cabinets to be flown from two points
Side-pull Anchors:	For use when flying cabinets horizontally
Shoulder Eye Bolts:	For use when flying cabinets vertically
Covers:	Heavy-duty padded nylon transport covers
Weatherized Version:	Suitable for permanent outdoor installations
Online Information:	bassboss.com/at212

**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 Sustained Output" ratings, which reflect actual measured, continuous output levels.*

Setup Instructions:

1. Place loudspeaker in the desired location. Ensure that it is secure and stable.
2. Rotate the input attenuator knob counter-clockwise to the lowest setting.
3. Connect signal via the XLR input jack.
4. Connect the amplifier module's power supply cord using the blue PowerCON connectors. To insert, align the indexing tabs on the PowerCON connector, insert into socket and rotate clockwise until the latch catches.
5. Connect the electrical plug to a power source. Check that the "Ready" LED is illuminated.
6. Select the desired preset via the PRESET SELECT button.
7. Rotate the input attenuator clockwise to achieve the desired sound level.

Controls:

Preset Select: The AT212-3K compact full-range loudspeaker's DSP is equipped with 4 presets. All four presets contain limiter settings to ensure safe operation. The presets are accessed via the preset select button on the amplifier interface, between the XLR input and output connectors. When the button is pressed, each preset loads in sequence, from 1 to 4, and then cycling back to 1. A green LED indicates the active preset.

Gain: The level knob provides a range of control from OFF to +12dB within each preset.

Indicators:

Ready - Green LED - Indicates that the amplifier has power and is operational.

Signal - Green LED - Indicates the presence of signal reaching the amplifier inputs.

Temp - Amber LED - Indicates the amplifier is actively reducing level to prevent overheating.

Limit - Red LED - Flashing - Indicates that the loudspeaker is being overdriven.

Limit - Red LED - Solid or rapid blinking - Indicates amplifier is in protect mode.

Preset Functions:

Preset 1: Stand-alone Full-Range Operation. 45Hz high-pass filter. Recommended for use when no sub is available. Peak output is restricted to prevent low frequencies damaging the loudspeaker.

Preset 2: Intermediate Stand-Alone setting, 60Hz high-pass. Recommended for use with a single sub or when subwoofers are separated from the AT212-3Ks, such as when subs are center-placed.

Preset 3: Intermediate High-Output setting. 75Hz high-pass. Recommended for use when single subwoofers are co-located with the AT212-3Ks, such as if the AT212-3Ks are on a speaker pole above a subwoofer or on a tripod adjacent to a subwoofer.

Preset 4: Maximum SPL Setting, 90Hz high-pass. Recommended for use when outdoors, in larger venues and/or when multiple or larger subwoofers are co-located with the AT212-3Ks.

Presets 2, 3 and 4 allow the AT212-3Ks to be combined with various subwoofer configurations and allow the sound to be tailored to different environments. It is recommended to listen to the appropriate presets in each new setting and choose the one that works best in that environment.

System Setup Addendum: When connecting multiple BASSBOSS loudspeakers in a system, signal can be passed through from one powered loudspeaker to another using balanced, shielded XLR cables. No processing is applied to the signal as it passes through from the input to the output connectors in each loudspeaker. Signal can be routed in any sequence because each loudspeaker receives a full-range signal and applies the necessary processing in order to operate as part of the overall system. It is recommended to run signal to the nearest box first and patch to the next nearest box in sequence.

Troubleshooting:

If after following the above instructions for setup you have no output from the loudspeakers, please check the following:

Verify that the green power (PWR) LED is on. If not, check the following:

1. Is the power cord plugged into a live outlet?
2. Is the Neutrik PowerCON connector rotated into the locked position?

If the power LED is on, check the following:

Is the green "signal present" LED (SIG) illuminating? If not:

1. Is the signal cable connected to the input?
2. Is the signal cable connected to an operating output at the other end?
3. Is the signal flowing to the input? Check the integrity of the cable.

Safety Information:

Important information regarding safety and the use of your loudspeakers:

Never stand in the immediate vicinity of loudspeakers driven at a high level. Professional loudspeaker systems are capable of causing a sound pressure level detrimental to human health. Seemingly non-critical sound levels (from approx. 95 dB SPL) can cause hearing damage if people are exposed to it over a long period. To prevent potentially dangerous exposure to high levels of acoustic pressure, anyone who is exposed to these levels should use adequate protection devices.

When a transducer capable of producing high sound levels is being used, it is therefore necessary to wear ear plugs or protective earphones.

See the manual technical specifications to know the maximum sound pressure level.

- In order to prevent accidents when setting up the loudspeakers or loudspeaker stands, make sure they are standing on a firm surface.
- Ensure that all additional hardware, fixings and fasteners used for installation or mobile deployment are of an appropriate size and load safety factor.
- Pay attention to the manufacturers' instructions and to the relevant safety guidelines. Regularly check the loudspeaker housings and accessories for visible signs of wear and tear, and replace them when necessary.
- Regularly check all load bearing bolts in the mounting devices.

Caution: Loudspeakers produce a static magnetic field even if they are not connected or are not in use. Therefore make sure when erecting and transporting loudspeakers that they are nowhere near equipment and objects which may be impaired or damaged by an external magnetic field. A distance of 3 feet (1m) should be maintained between loudspeakers and sensitive equipment such as CRT monitors or magnetic storage media.

Never attempt to carry out any operations, modifications or repairs that are not expressly described in this manual.

Contact **BASSBOSS** support if the product is not functioning properly. Do not attempt to repair the product - We can help!

BASSBOSS strongly recommends this product be installed by a qualified, professional installer who can ensure correct installation and certify that it is installed in compliance with the regulations in force.

The entire audio system must comply with the current local standards and regulations regarding electrical systems.

Important Notes:

To prevent the occurrence of noise on signal cables, use shielded cables only. Avoid routing signal cables close to equipment that produces high-intensity electromagnetic fields such as transformers, power cables and loudspeaker wires. Do not coil excess power cable. Do not coil or wrap power cables and signal cables together.

Thanks for joining the BASSBOSS Family!

WARRANTY INFORMATION – Our fully-transferable warranty covers all BASSBOSS products.

STANDARD CABINET WARRANTY

BASSBOSS loudspeaker cabinet integrity, including all joinery, fasteners, handles and wood, is warranted against defects in materials and workmanship for a period of six (6) years from the date of purchase. This warranty does not cover items that are intended to wear and can be replaced if worn or damaged. Examples of items not covered by this warranty are cabinet feet, grills and the finish or coating applied to the cabinet.

ENHANCED COMPONENT WARRANTY

BASSBOSS amplifiers and electronic components are covered against failures due to defects in materials and/or workmanship for a period of three years from the date of purchase.

NO WORRIES WOOFER WARRANTY

Transducers, including burned or open voice coils in subwoofers, are covered for two years from the date of purchase.

OUR SUPPORT

It is our goal to provide trouble-free loudspeakers. That objective begins as part of the design phase and continues on through to any service you may require. In order to be able to provide the lowest possible failure rate, the best possible warranty service and the fastest turn-around time, we request that you contact us immediately if you notice any problem with your system, and before you attempt any repairs. We can provide the best and fastest solution if we know the details of the problem before any repair attempts are made. Often **BASSBOSS** technicians can troubleshoot problems that may arise and no repair or further service will be necessary. Warranty support is a service, and part of that service includes helping you prevent failures and minimize repair and shipping costs. Please do not ship products without first obtaining a return authorization number by calling (855) 822-7770 toll-free or by emailing support@BASSBOSS.com. **BASSBOSS** service technicians will provide assistance and instructions on shipping and packaging requirements specific to your service needs.

WARRANTY LIMITATIONS

During the warranty period, if your loudspeaker malfunctions or fails due to any defect in components or manufacturing, the failed parts will be repaired or replaced. This warranty does not extend to damage resulting from improper installation, misuse, neglect or abuse. Warranty coverage and eligibility will be determined upon inspection by **BASSBOSS** personnel. This warranty does not cover labor other than that authorized and performed by **BASSBOSS** personnel. Service will be performed upon the return of the failed unit, together with its original sales receipt or other proof of purchase, to BASSBOSS or an Authorized Service Facility. Purchaser is responsible for all costs of shipping and handling. Cosmetic damage is specifically excluded from this warranty. This warranty is rendered void if service, repairs and/or modifications are attempted or made by anyone not specifically authorized by **BASSBOSS** to perform said services. Please contact **BASSBOSS** or your local **BASSBOSS** dealer before attempting any repairs and before shipping parts in for service. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. For more information concerning **BASSBOSS** service and warranty policies please contact us at (855) 822-7770 toll-free.

EXPORT WARRANTY

BASSBOSS products can be purchased worldwide. In countries without local **BASSBOSS** distributors, product requiring service must be shipped back to the US for warranty repairs. In most cases, the entire cabinet will not need to be shipped. Generally only the individual affected parts will need to be shipped to the factory for servicing. Please contact BASSBOSS before attempting any repairs and before shipping parts in for service.

SHIPPING AND PACKAGING

Please package your returns safely and securely. **BASSBOSS** does not cover damage that occurs in transit. Freight insurance is recommended.

FCC Compliance Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

EC Declaration of Conformity

Manufacturer:

True Lee Loudspeakers | BASSBOSS
2620 S. Hill St. Los Angeles CA 90007

We declare that under our sole responsibility the product: AT212-3K Powered Top

Intended use: Professional Audio Loudspeaker

Are in conformity with the provisions of the following EC Directives, including all amendments, and with national legislation implementing these directives:

- 2006/95/EC Low Voltage Directive
- 2004/108/EC Electromagnetic Compatibility Directive
- 2002/95/CE RoHs Directive

**Need more assistance?
Support is available via phone or email.**



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855-822-7770 toll free



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