



User's manual

DV12-MKII

12" Powered Top



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DV12-MKII

12" Powered Top

High Fidelity, High Output, High SPL ○

Ultra-Wide Horizontal Coverage ○

Broad Frequency Range, Long Throw ○

Line-Array Performance from Pairs ○

Description:

Designed for incredible sonic clarity and true full-range performance, the DV12-MKII is simply the best single 12" top on the market.

New features:

- Specially-developed high-performance woofer features increased excursion and power handling capabilities with reduced distortion.
- Upgraded compression driver from a 2.5" to 3" diaphragm, featuring smoother frequency response and increased sensitivity.
- Updated cabinet tuning takes advantage of improved low-frequency performance of new woofer.
- Multiple handles have been added, making set-up even easier.

The result is **even higher output, resolution, depth and detail** than the original. With the MKII, the DV12 again sets the standard for the full-range compact main loudspeaker.

The DV12-MKII uses a **line-array derived 1.4" throat isophasic wave guide instead of a conventional horn**. The result is a combination of very wide and consistent horizontal coverage (120°) with a tight vertical pattern (20°) that extends high frequency projection farther than a conventional horn.

The **lower frequencies are produced by a 12" woofer that features an ultra-light carbon-fiber impregnated cone for outstanding resolution**, a cast aluminum basket for rigidity and reliability, a Neodymium magnet for light weight and high efficiency, a 4" voice coil for high power handling and a symmetrical, long-excursion suspension for accurate and extended bass response.

The **amplifier can deliver output peaks of 150V, to provide amazing dynamic resolution and impact. It also has a 10,000:1 damping factor, which provides extremely tight control over the cone**. The fully integrated and comprehensive digital processing ensures smooth response and reliable operation thanks to meticulous filter alignments and dual stage limiters that protect the drivers from excessive peaks, and also from thermal overload, by monitoring real power output over time. The amplifier features a large heat sink and 2 temperature-controlled fans to ensure consistent operation under even the most extreme conditions.

The DV12-MKII is the **ultimate in plug and play, with universal voltage compatibility and no need for any outboard gear other than a sound source**. The processing features presets that allow it to run in several configurations. The first is full-range mode, with response down to 40Hz (-3dB). The other presets allow the DV12-MKII to be integrated with various types and sizes of subwoofers. Each preset has a specific high-pass filter frequency, input sensitivity, high and low frequency limiter setting and subwoofer alignment processing.

The DV12-MKII can be **combined with any BASSBOSS subwoofer because all the presets are programmed to align with all the subs**. Each preset offers different advantages that suit certain applications and preferences. No matter which preset you choose, your BASSBOSS subs and DV12-MKII tops will always play in harmony.

The **cabinet is assembled in the USA from premium selected 15mm Finland Birch**. The design incorporates a 4-degree down-angle that ensures even distribution of high-frequency energy from front-to-back of a venue when the DV12-MKII is placed at the appropriate height on a tripod or support pole. Additional features include a 38mm (1-3/8") cast metal pole socket, eight fly points and six handles. The amplifier is recessed from the back of the cabinet to protect it in transit. A perforated steel grill protects the woofer, and its progressive perforation pattern serves to broaden midrange dispersion. The high-frequency lens and port are left clear of the grill to minimize reflections and air flow noise that could compromise sound quality.

Should you ever need more sound than can be produced by one DV12-MKII per side, its invertible array feature allows perfect summing of two speakers, which provides a big increase in output and projection without compromising the crystal clarity. To further utilize the advantages of the line-array waveguides, the DV12-MKII's are designed to stack with the HF lenses vertically aligned. This allows the high-frequency sections of two boxes to sum perfectly as they would in a line-array while the low-frequency sections sum in a column for improved low-frequency directivity and greatly increased output.

There is finally a speaker that allows two completely functional stereo systems to be combined into one without having to compromise, either when they are together, or when they are separated.

DV12-MKII | 12" Powered Top

SPECIFICATIONS

Acoustical

Loudspeaker Description:	Long throw, wide dispersion compact full-range speaker
Frequency Response (± 3 dB):	40 - 19,000 Hz
Max Sustained Output (Full-Range):	120 dB SPL, 1m
Max Sustained Output (Satellite-Mode):	126 dB SPL, 1m
Max SPL (Peak)*:	134 dB
Nominal Dispersion ($^{\circ}$ H x $^{\circ}$ V):	120 x 20

Electrical

Amplification:	3000 Watt Two-Channel Powersoft Class D Amplifier
Processing:	Integrated comprehensive including high-pass, low-pass, parametric EQ, phase alignment and limiting
Electrical Connectors, Amplifier:	Neutrik Powercon in and through
Electrical Connector, Mains:	NEMA 5-15 (Edison)
Voltage Operating Range:	90-250V. Auto-sensing, auto switching universal supply
Current Draw, Nominal:	3.6A @ 120 volts, 2A @ 220V (typical, 1/8 max power)
Display:	LEDs for Power on/ready, Signal, Thermal and Protect. LEDs indicating selected preset
Signal Input Connector:	XLR-F
Signal Output Connector:	XLR-M pass-through

Physical

Enclosure Type:	Self-powered, bi-amplified, 2-way full-range. Direct radiating vented LF section, wave-guide-loaded HF section
Transducer, LF:	1 x 12" diameter (300 mm) neodymium motor woofer with 4" (100mm) voice coil
Transducer, HF:	1 x 1.4" throat neodymium motor compression driver with 3" (76mm) voice coil on isophasic wave guide
Cabinet Construction:	15 mm multi-ply Finland Birch plywood with internal bracing and damping. Includes 8 steel braced 10mm fly points and a 35mm pole socket
Suspension Points:	8 x 10mm internally braced threaded mounting points
Dimensions (HxWxD):	24.5" x 14.5" x 17" (62.23 cm x 36.83 cm x 43.18 cm)
Net Weight:	63 lbs. (28 kg)
Shipping Weight:	68 lbs. (30 kg)
Exterior Finish:	Rugged, weatherproof, black textured, bonded high-pressure polyurethane coating
Grill:	Perforated, powder coated steel

Optional

Stacking Bracket:	Adjustable bracket set, mounts second cabinet inverted for near-perfect summed response and line-array style performance. Provides splay-angle adjustment from 0 to 8 degrees.
Flying Bracket:	Two DV12s can be arrayed together and flown from the DV12 array flying bracket.
Shoulder Eye Bolts:	For use when flying cabinets vertically
Side-pull anchors:	For use when flying cabinets connected by stacking bracket to Truss
Cover:	Heavy-duty padded nylon transport cover with velcro closure
Loop-through PowerCON:	Power jumper for chaining power between stacked cabinets
Online Information:	bassboss.com/dv12

*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 DV12-MKII 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. 40Hz 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 DV12-MKII's, such as when subs are center-placed.

Preset 3: Intermediate High-Output setting. 80Hz high-pass. Recommended for use when single subwoofers are co-located with the DV12-MKII's, such as if the DV12-MKII's are on a speaker pole above a subwoofer or on a tripod adjacent to a subwoofer.

Preset 4: Maximum SPL Setting, 100Hz high-pass. Recommended for use when outdoors, in larger venues and/or when multiple or larger subwoofers are co-located with the DV12-MKII's.

Presets 2, 3 and 4 allow the DV12-MKII's 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.

DV12-MKII Arrayed Pairs:

The DV12-MKII's can be arrayed in pairs, with the second cabinet inverted above the first. Any preset can be chosen provided both cabinets are set to the same preset and the gains are matched. Optional hardware is required to attach the two boxes together. The hardware allows for adjustment of the total vertical coverage of the array. The DV12-MKII is also equipped with a power pass-through facility that allows two boxes to be connected on a single power source. An optional PowerCON jumper cable is available for this purpose. Using the signal and power pass-through connectors allows the minimum number of cables to be run to the array. NOTE: Arrayed pairs must be set to the same preset number and level to achieve phase-coherent summing.

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: DV12-MKII 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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