

VIO L212

Quickstart user manual Section 1

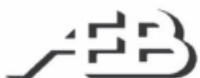
The warnings in this manual must be observed together with the "USER MANUAL - Section 2".

Le avvertenze nel presente manuale devono essere osservate congiuntamente al "MANUALE D'USO - Sezione 2".

Die Warnungen in diesem Handbuch müssen in Verbindung mit der "BEDIENUNGSANLEITUNG - Abschnitt 2" beobachtet werden".

Les avertissements spécifiés dans ce manuel doivent être respectés ainsi que les "CARACTERISTIQUES TECHNIQUES - Section 2".

Las advertencias del presente manual se deben tener en cuenta conjuntamente con las del "MANUAL DEL USUARIO" - Sección 2".



A.E.B. Industriale Srl Via Brodolini, 8 Località Crespellano 40053 VALSAMOGGIA BOLOGNA (ITALIA)
Tel +39 051 969870 Fax +39 051 969725 www.dbtechnologies.com info@dbtechnologies-aeb.com



Thank you for choosing a dBTechnologies Product!

VIO L212 is the new dBTechnologies flagship 3-way professional active line array module. It is equipped with: two 1.4" neodymium compression driver exit (3" voice coil), four 6.5" horn loaded neodymium midrange transducers (2" voice coil) and two 12" neodymium woofers (3" voice coil). The full-range acoustical design includes an efficient waveguide in order to reach the best coherence in line-array configuration for the higher frequencies. The mechanical design allows an easy, accurate and quick installation in flown or stacked use. The powerful double DIGIPRO® G4 amplifier section, capable of handling up to 3200 W (RMS power), is controlled by a DSP, which can perform a detailed customization of the output sound of the speaker. In particular, thanks to the new dual rotary encoder interface, it is possible to accurately tune the line-array configuration coverage, using the FIR filter technology. In addition, the integrated RDNET connections are useful for a remote in-depth line-array control and configuration.

Check the site www.dbtechnologies.com for the complete user manual!

1) Unpacking

The box contains:

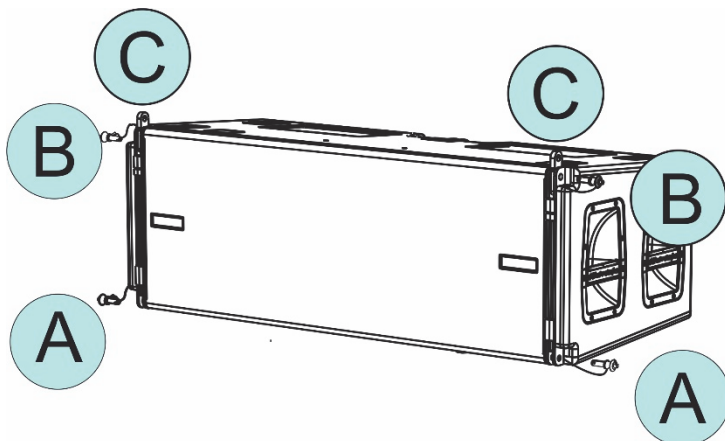
N°1 VIO L212

N°2 100-120V~ FUSES

This quick start and warranty documentation

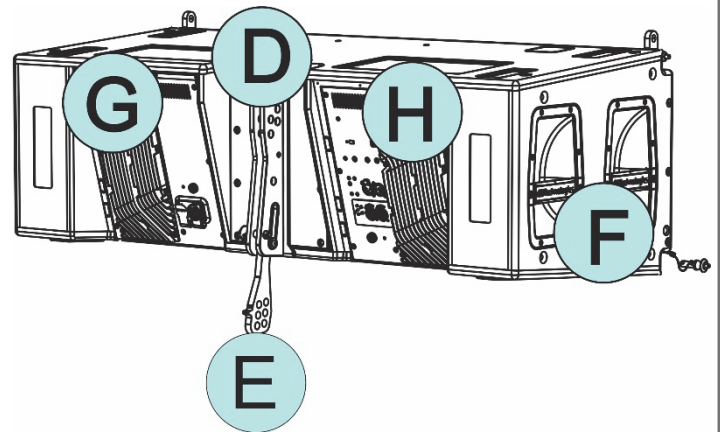
2) Easy installation

VIO L212 can be installed in different configurations. For a quick installation, the front side the user finds:



- Lower anchorage systems [A] for the connection of other modules or of the DRK-212 fly-bar (in a stacked configuration)
- Pins [B] for fastening upper retractable brackets
- Retractable brackets [C] for anchoring to a higher module (or to the DRK-212 fly-bar in a flown configuration)

In the rear side the user can find:

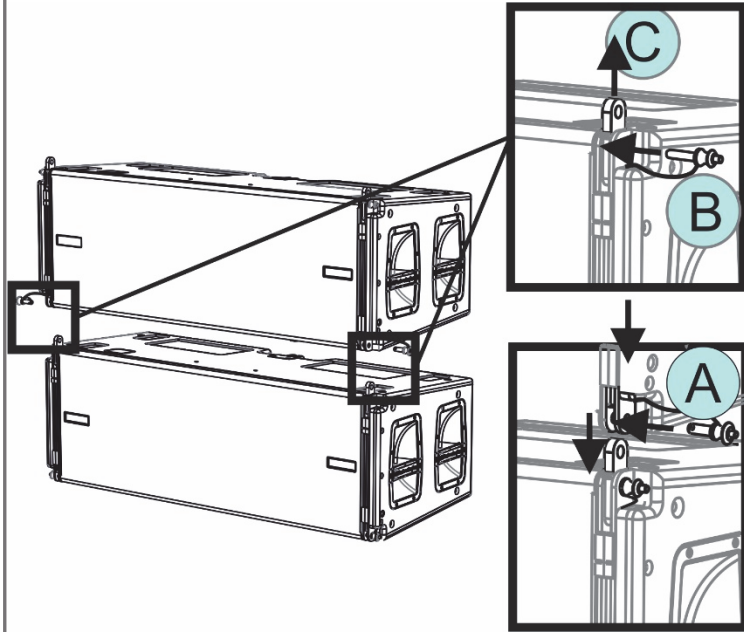


- One rear bracket [D] (with movable joint [E]) for line-array mounting, with splay angles reference holes for an easy setup and two quick-release pins.
- Two handles [F] for each side
- Two amplifiers, the first with mains section panel [G], the second one with controls and audio connections [H] panel. They are protected by heavy-usage rain covers (not shown here).



CHECK PERIODICALLY THE INTEGRITY AND THE FUNCTIONALITY OF THE ENCLOSURE, OF THE PINS, OF THE ARMS AND OF THE BRACKETS, FOR A SAFE INSTALLATION. MAKE SURE THAT THE PINS SECURE PROPERLY THE MODULES AND THAT THEY ARE FULLY LOCKED.

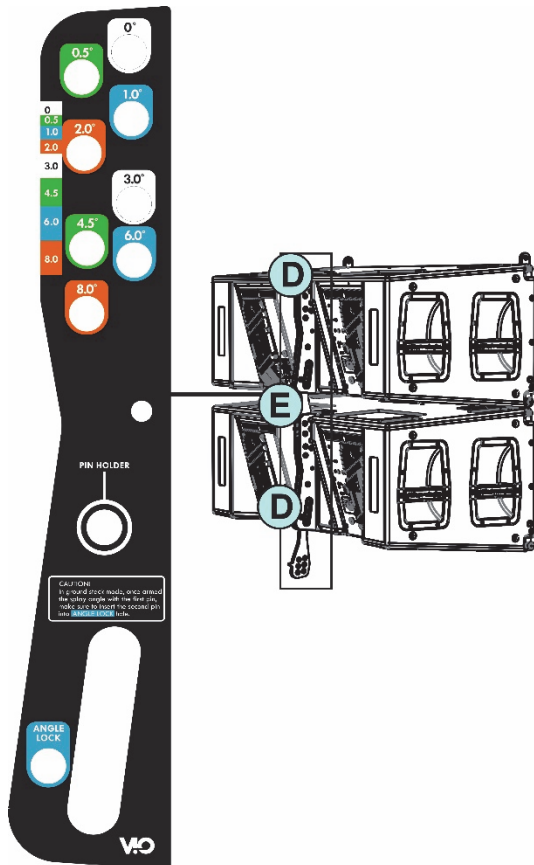
In order to mount the line array, in the front side:



- Remove the upper front pins [B], lift the retractable brackets [C] in the final position as shown and fasten them with the pins.

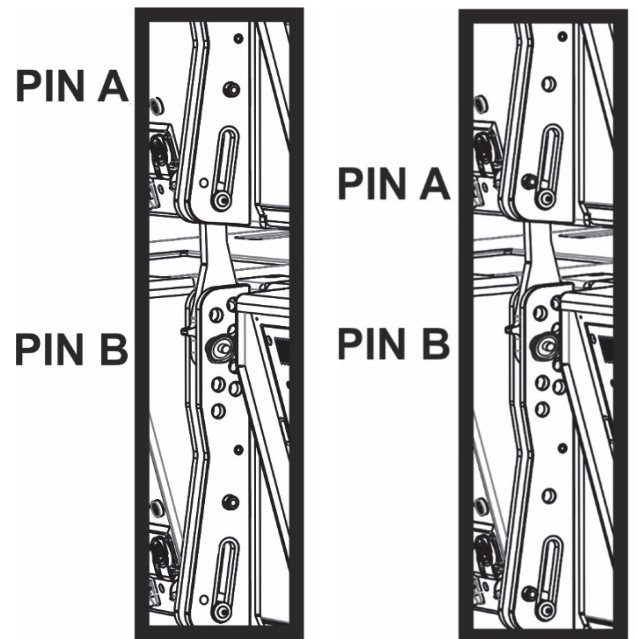
- Align the fastening systems of the upper module and the retractable arms of the lower one and fasten them with the [A] quick-release pins.

In the rear side:



- If you need a flown installation, only one pin is required to secure the movable joint. Check that the joint [E] is inserted in the bracket [D] as shown. Lift the arm (not the entire VIO-L212 module) to the desired tilt hole. Fasten one of the two rear pins in the desired angle, and let the second one in the position "PIN HOLDER". Check that the pins are fully inserted.

- If you need a stacked installation, it is mandatory to use two pins (of 2 different modules) to secure the rear bracket. Check that the joint [E] is fully inserted in the bracket [D]. Lift the joint (not the entire VIO-L212 module) to the desired tilt hole and insert the PIN 1 in to the related splay angle position. Then lift the VIO-L212 upper module, until you can insert the PIN 2 in the "ANGLE LOCK" position as shown. Release the upper enclosure and check that the movable joint [E] leans on the second pin, fastened in the correct position.



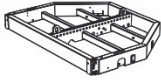
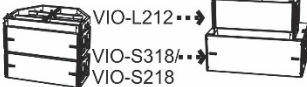
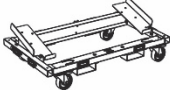





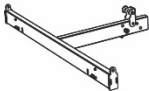
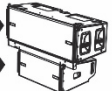
FLOWN: 2° STACK: 2°

EXAMPLE OF 2° SPLAY ANGLE INSTALLATIONS

⚠ THE INSTALLATION IS POTENTIALLY DANGEROUS AND SHOULD BE ATTEMPTED BY INDIVIDUALS WHO HAVE A THOROUGH KNOWLEDGE OF THE TECHNIQUES AND REGULATIONS OF RIGGING OBJECTS OVERHEAD. A MINIMUM OF TWO PEOPLE IS REQUIRED FOR THE MOUNTING OF THE LINE-ARRAY.

3) Accessories

For an easy setup are available among others: a professional fly-bar (**DRK-212**) for flown or stacked installation, a trolley for the transport of up to 4 VIO-L212 (**DT-VIOL212**) that can be used also in stacked-standalone configuration, a dolly for the easy transport of 1 module (**DO-VIOL212**), a trolley (**DT-DRK212**) for the quick and safe transport of the two fly-bars and of the cables and an adapter (**TF-VIO2**) for the mounting with VIO-L210,

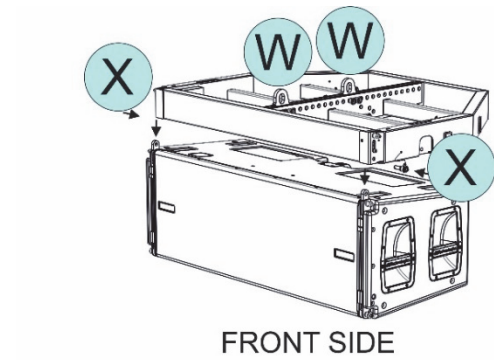
NAME	IMAGE	USAGE EXAMPLES
DRK-212		 VIO-L212 → VIO-S318 → VIO-S218
DT-VIOL212		UP TO 4 VIO-L212 
DO-VIOL212		NO. 1 VIOL212 MAX 
DT-DRK212		UP TO 2 DRK-212 
TF-VIO2		 VIO-L212 → VIO-L210 →

The DRK-212 allows an overall positive or negative inclination for the line array. The tilt angle between the fly-bar and the first VIO-L212 module is 0° in each case, but the mounting position of the first module changes.

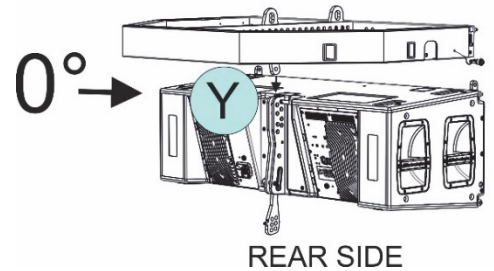
In particular, the DRK-212 fly-bar is provided with:

- no. 2 pairs of [X] front anchoring systems (depending on the choice of positive or negative inclination of the line-array)
- no. 2 load adaptors [W] for chain motors
- no. 2 rear movable joint [Y] (depending on the choice of positive or negative inclination of the line array)

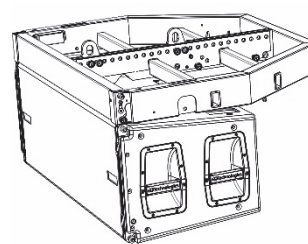
For further and more detailed information about DRK-212 and the other accessories, it is mandatory to read the related instructions.



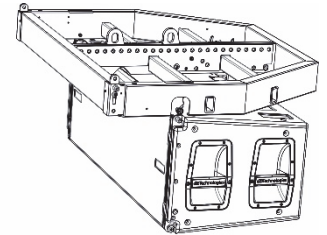
FRONT SIDE



REAR SIDE



NEGATIVE



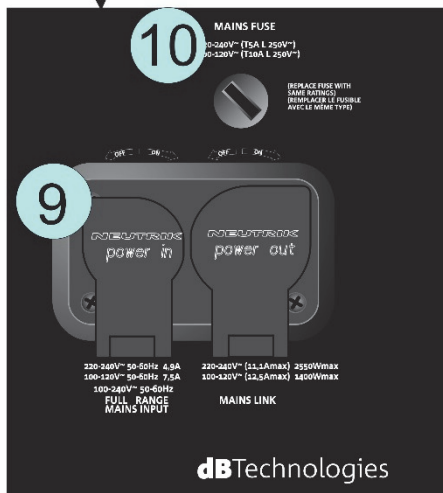
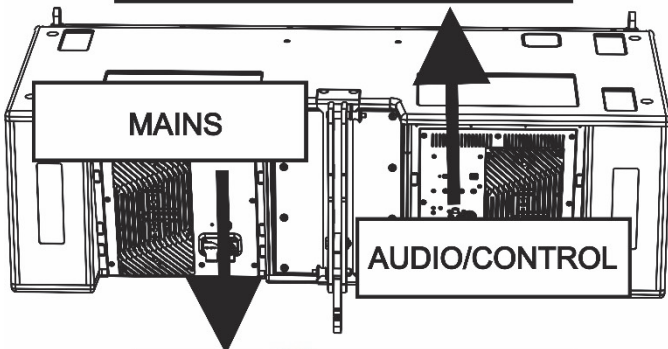
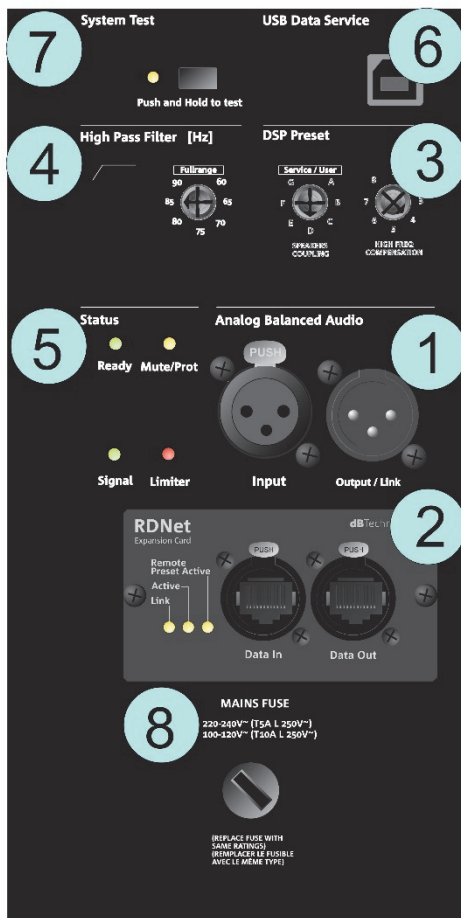
POSITIVE



CHECK PERIODICALLY THE INTEGRITY AND THE FUNCTIONALITY OF THE ACCESSORIES AND OF THE TECHNICAL EQUIPMENTS FOR A SAFE INSTALLATION. USER SHOULD NEVER APPLY A LOAD THAT EXCEEDS THE WORKING LOAD LIMITS OF ANY RIGGING COMPONENTS OR EQUIPMENT HERE PRESENTED. DESIGN, CALCULATION, INSTALLATION, TESTING AND MAINTAINANCE OF SUSPENSION AND STACK SYSTEMS FOR AUDIO EQUIPMENT MUST BE PERFORMED ONLY BY QUALIFIED AND AUTHORIZED PERSONNEL. AEB INDUSTRIALE S.R.L. DENIES ANY AND ALL RESPONSIBILITY FOR IMPROPER INSTALLATIONS, IN THE ABSENCE OF SAFETY REQUIREMENTS. IF THE SPEAKERS ARE SUSPENDED, DBTECHNOLOGIES STRONGLY RECOMMENDS THAT THE SYSTEM BE INSPECTED AT LEAST ONCE A YEAR.

4) Amplifiers controls and mains

The two DIGIPRO G4® amplifiers of VIO L212 are controlled by a powerful DSP. All the connections and controls are in the rear amplifier control panels:



- 1 – Balanced audio input and output link
- 2 – RDNet Data In / Data out (with control LEDs)
- 3 – DSP PRESET rotary switches (Speaker coupling/High frequency compensation)
- 4 – High pass filter
- 5 – Status LEDs (Ready, Mute/Prot, Signal, Limiter)
- 6 – B-type USB port for firmware updating
- 7 – System test button
- 8 – Mains fuse (amplifier A)
- 9 – Neutrik PowerCON® True1 IN/LINK
- 10 – Mains fuse (amplifier B)

WARNING

The fuses are factory set for 220-240V~ operation.

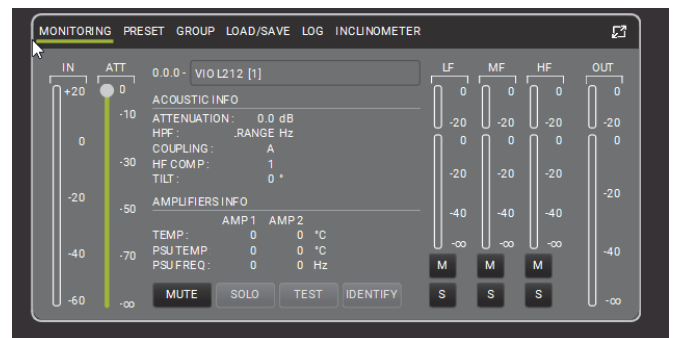
If it is necessary to change the fuses to 100-120V~ range:

1. Turn off the power and disconnect the speaker from any cable.
2. Wait 5 minutes.
3. Substitute the fuses with the correct two supplied.

5) Software (Aurora Net and dBTechnologies Composer)

VIO L212 can be fully remote controlled via RDNet. In remote control mode, the use of free professional softwares, developed by dBTechnologies, allows a complete system management: Aurora Net, and dBTechnologies Composer.

a) Aurora Net (from beta version)



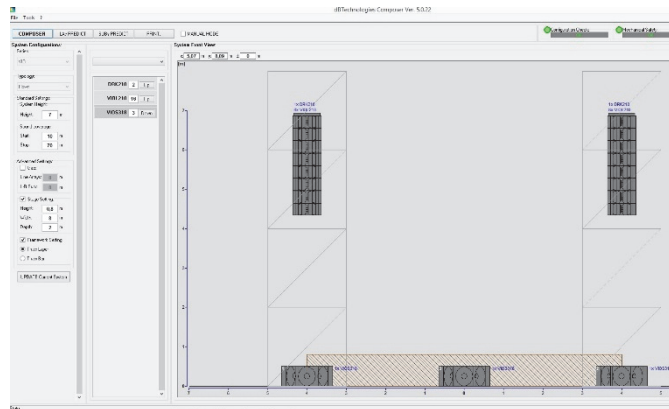
The software which must be used in case of remote control is Aurora Net. This cross-platform product allows the user controlling, setting and organizing all the ViO family.



LAST SETTINGS STORED ON VIOL212 (USING DBTECHNOLOGIES AURORA NET SOFTWARE), CAN BE RECALLED LATER ON THE SPEAKER, WITHOUT AURORA: SIMPLY TURN THE ROTARY “SPEAKER COUPLING” ON “SERVICE/USER” POSITION.

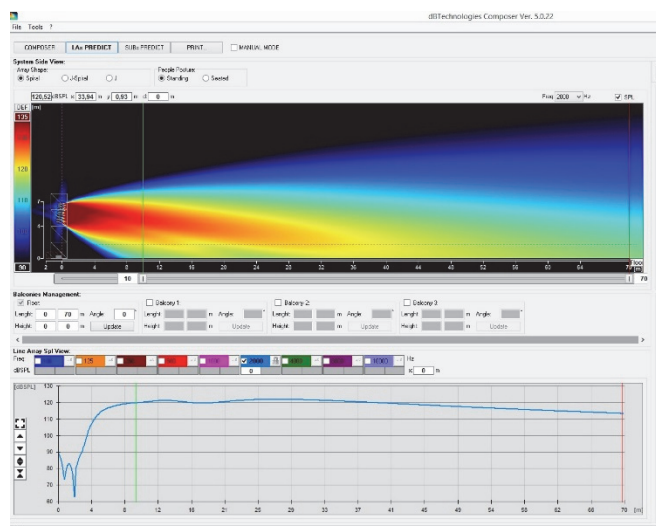
b) dBTechnologies Composer (from rev. 6.5)

The software dBTechnologies Composer (from the version no. 6.5) is useful for complete sound systems design. It has been developed to optimize complex acoustical settings like line-array alignment and to calculate easily all parameters needed in professional sound system scenarios.



It is used to predict completely the acoustical behaviour of professional dBTechnologies products in an immediate way.

In particular, it can simulate different parameters, for example: mechanical safety in fly-bar use, SPL levels in outdoor environment, system coverage, system delays. The user-friendly graphic interface helps the user to easily understand in-depth settings.



Check the complete user manual on www.dbtechnologies.com for further information about the system and available accessories.

Scarica il manuale completo da www.dbtechnologies.com per ogn ulteriore informazione sul sistema e sugli accessori dispnibili.

Füreitere Informationen und verfügbares Zubehör lesen sie bitt di **vollständige Bedienungsanleitung** unter www.dbtechnologies.com.

Vériez le manuel de l'utilisateur complet sur [ww.btechnologies.com](http://www.btechnologies.com) pour des informations coplémentaires du système et des accessoires disponibles.

Compruebe el manual de usuario completo sobre www.dbtechnologies.com para la información adicional sobre el sistema y accesorios disponibles.

Technical Data

Speaker Type: 3-way professional active line-array element

Acoustical data

Usable Bandwidth [-10 dB]: 49.8 - 20000 Hz
Frequency Response [-6 dB]: 55 - 18600 Hz
Max SPL (1 m): 142 dB (pink noise/crest factor: 4.5)
HF compression driver: (2x) 1.4" Exit, Neodymium
HF voice coil: 3", Titanium
Waveguide HF: yes
MF: (4x) 6.5", Neodymium
MF Voice Coil: 2"
LF: (2x) 12", Neodymium
LF Voice Coil: 3"
FIR filters: yes
Horizontal dispersion: 90°
Vertical dispersion: varies on number of modules and configurations

Amplifier

Amp Technology: (2x) Digipro® G4 – Fullrange with PFC
Amp Class: Class-D
RMS Power: 2x 1600 W (3200 W)
Peak Power: 2x 3200 W (6400 W)
Cooling: Passive (convection) / internal fan

Operating range: 100-240V~ (50-60Hz) full-range



Scan with your QR Reader App to download the complete User Manual

Download the complete user manual on:
www.dbtechnologies.com/EN/Downloads.aspx

EMI CLASSIFICATION

According to the standards EN 55103 this equipment is designed and suitable to operate in E5 Electromagnetic environments.

FCC CLASS A STATEMENT ACCORDING TO TITLE 47, PART 15, SUBPART B, §15.105

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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

WARNING: This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

WARNING: Make sure that the loudspeaker is securely installed in a stable position to avoid any injuries or damages to persons or properties. For safety reasons do not place one loudspeaker on top of another without proper fastening systems. Before hanging the loudspeaker check all the components for damages, deformations, missing or damaged parts that may compromise safety during installation. If you use the loudspeakers outdoor avoid spots exposed to bad weather conditions.

Contact dB Technologies for accessories to be used with speakers. dBTechnologies will not accept any responsibility for damages caused by inappropriate accessories or additional devices.

Features, specification and appearance of products are subject to change without notice.

dBTechnologies reserves the right to make changes or improvements in design or manufacturing without assuming any obligation to change or improve products previously manufactured.

Processor

Controller: DSP, 32 bit
AD/DA Converter: 24 bit / 96 kHz
Limiter: Dual Active Peak, RMS, Thermal
Controls: DSP presets, HPF, Impedance test
Advanced DSP function: Linear Phase FIR filters
Rotary presets: 2 Rotary BCD 8 positions for line-array configuration (Speaker Coupling, High Frequency Compensation)

Input / Output

Mains connections: PowerCON® TRUE1 In / Link
Maximum number of modules for each daisy chain power connection [mains input + mains link]: 1 + 2 VIO L212** (220-240V~), 1 + 1 VIO L212** (100-120V~)
Signal Input: (Balanced) 1x XLR IN
Signal Out: (Balanced) 1 x XLR link OUT
RDNET connectors: Data In / Data Out
USB connector: USB B-type (for SERVICE DATA)

Mechanics

Housing: Wooden box – Black polyurea finished
Grille: CNC machined full metal grille
Rigging points: 3 (Easy Rigging)
Handles: 2 for each side
Width: 1100 mm (43.31 in)
Height: 380 mm (14.96 in)
Depth: 450 mm (17.72 in)
Weight: 54.4 kg (119.9 lbs.)

POWER SUPPLY SPECIFICATIONS (POWER ABSORPTION)

Draw at 1/8 of full power in average use conditions (*): 2 A (230 V) - 3.1 A (115 V)

Draw at 1/3 of full power in maximum use conditions (**): 4.9 A (230 V) - 7.5 A (115 V)

* INSTALLER NOTES: The values refer to 1/8 of full power, in average operating conditions (music program with infrequent or no clipping). It is recommended to consider them the minimum sizing values for any type of configuration.

** INSTALLER NOTES: The values refer to 1/3 of full power, in heavy operating conditions (music program with frequent clipping or activation of the limiter). We recommend sizing according to these values in case of professional installations and tours.