



dB DVA MINI G2 User Manual

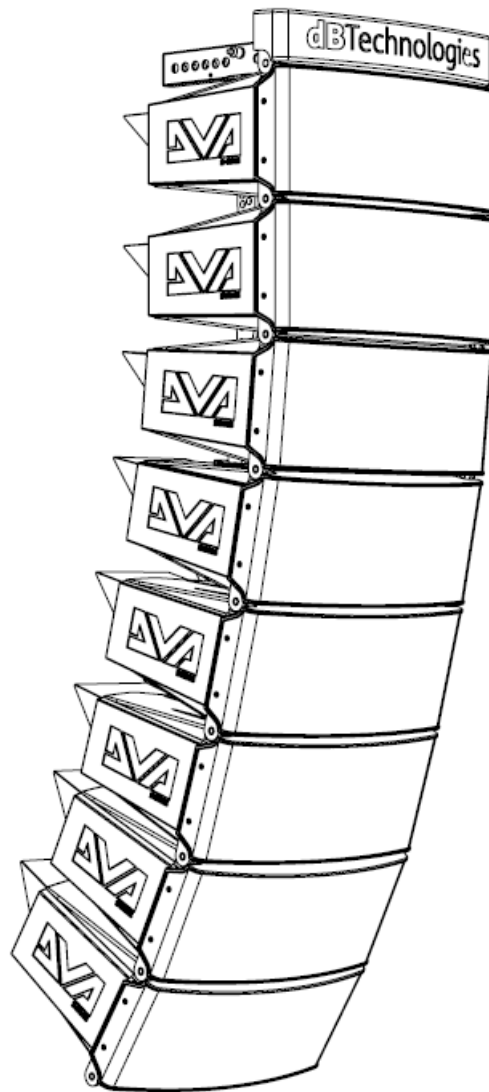
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dBTechnologies

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dB DVA MINI G2



GENERAL INFORMATION

WELCOME!

Thanks for purchasing a product designed and developed in Italy by dBTechnologies! This professional active line array incorporates years of experience and innovation in the field of sound reinforcement, using state-of-the-art acoustic, electronic and material research solutions.

PRODUCT OVERVIEW

The DVA MINI G2 2-way active line array combines technical innovation and optimised design in a simple and compact system, packed into a compact mechanical solution that is quick and easy to install. The key features are:

- a light and compact design with professional acoustic performance
- a quick-connect hanging system for simplified installation
- full remote control capability via RDNet and free AURORA NET software
- a complete set of accessories for the safe management of the mechanical installation
- dBTechnologies COMPOSER predictive software for the management of sound design in a variety of contexts

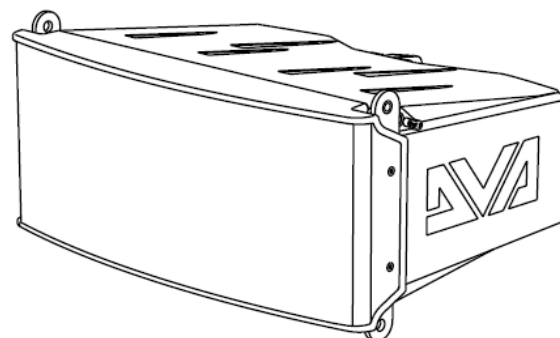
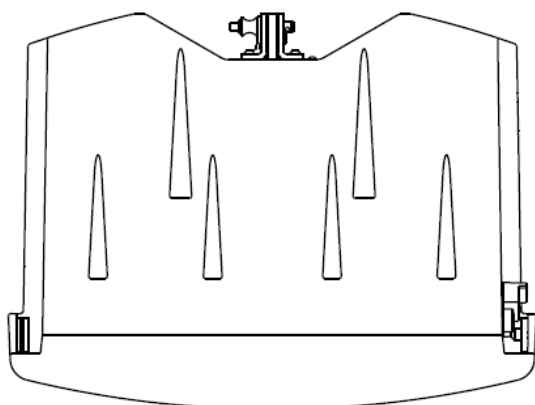
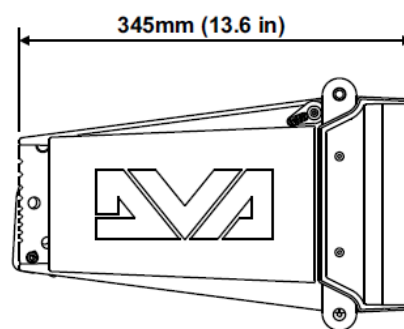
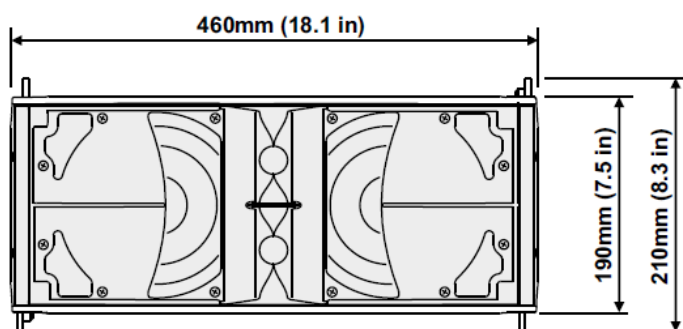
USER REFERENCE

To make the most of your VIO W10, we recommend that you:

- read the quick start user manual included in the package and this user manual thoroughly and keep this manual during the whole life of the product.
- Register your product at <http://www.dbtechnologies.com> under “SUPPORT”.
- Download and install the latest firmware version at <http://www.dbtechnologies.com> under “DOWNLOADS” (see section FIRMWARE UPDATES).
- keep proof of purchase and WARRANTY (User manual “section 2”).

MECHANICAL AND ACOUSTICAL FEATURES

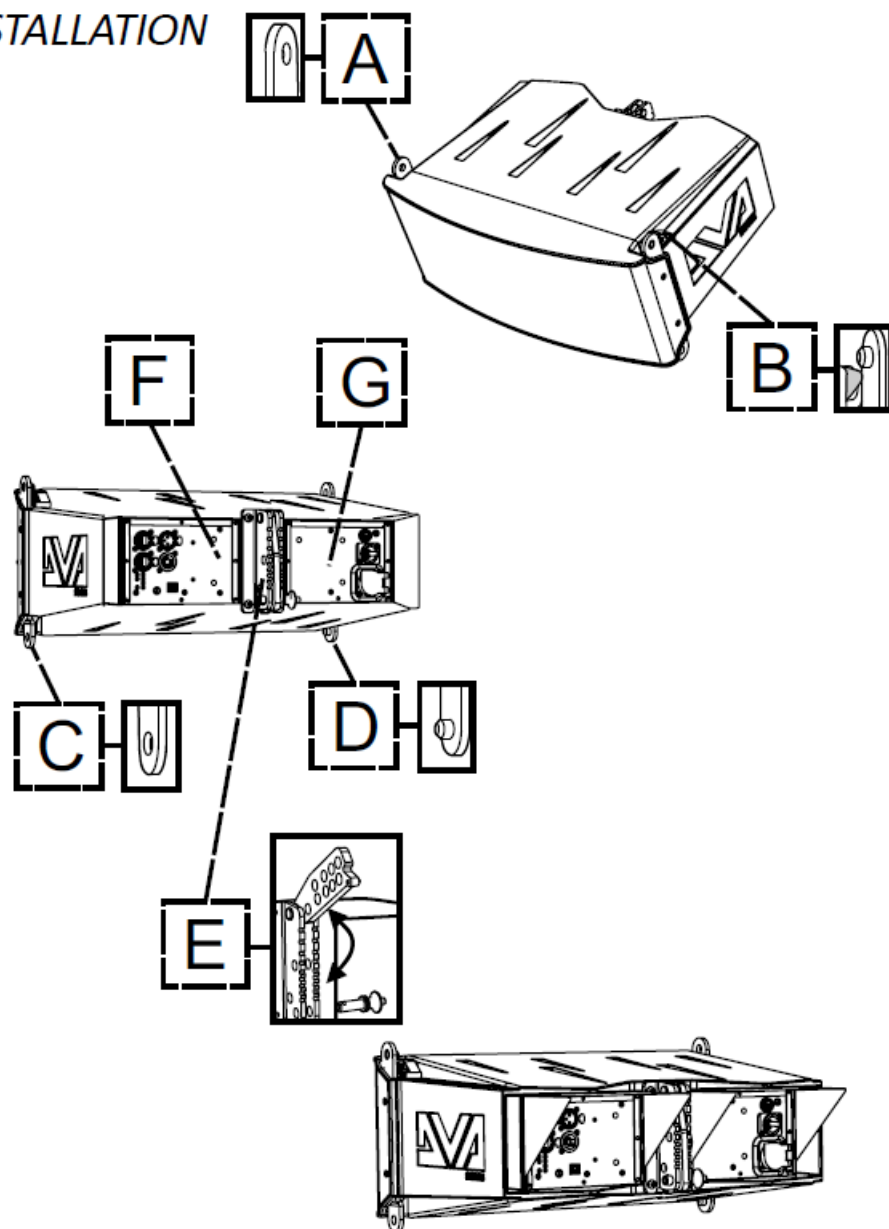
DIMENSIONS



The DVA MINI G2 series has been designed with particular attention to the optimization of weight and size. The cabinet weighs 8.4 kg (18.5 lbs). The dimensions are: 460 mm (L), 190 mm (H), 345 mm (W).

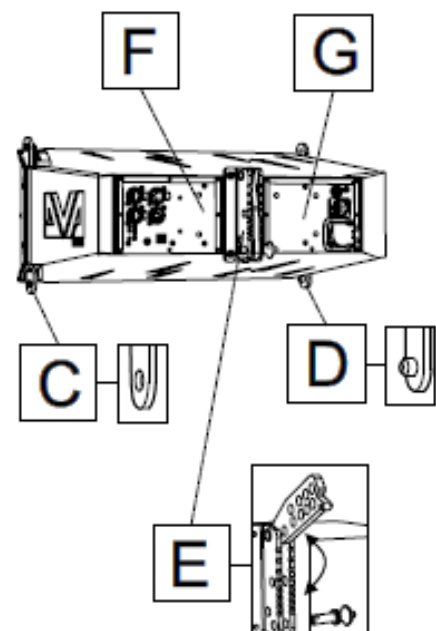
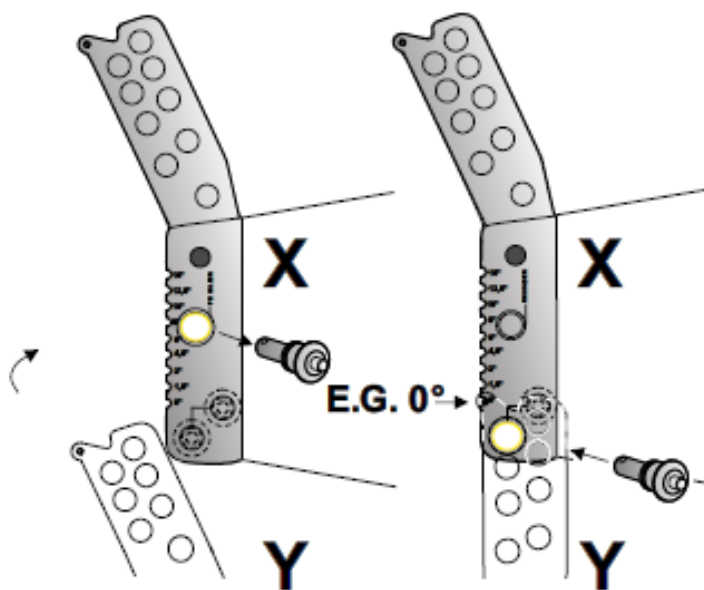
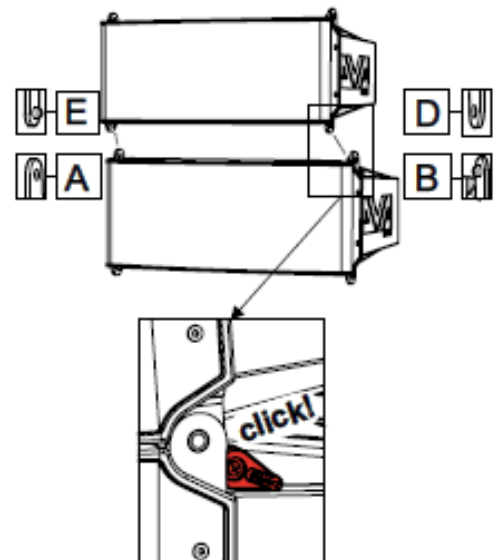
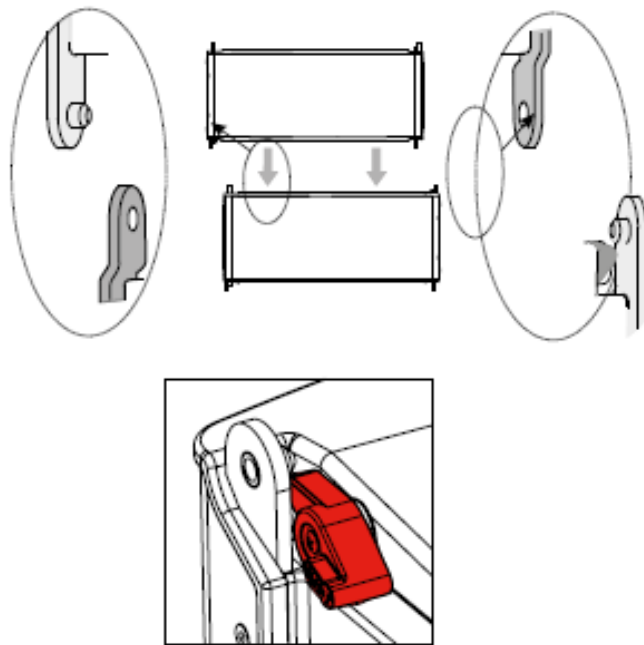
MECHANICAL INSTALLATION

MECHANICAL INSTALLATION



In particular, its main features are:

- A. UPPER BRACKET (with hole)
- B. UPPER BRACKET (with integrated pin)
- C. LOW BRACKET (with hole)
- D. LOW BRACKET (with integrated pin)
- E. REAR BRACKET (with joint and quick-release pin)
- F. RDNET NETWORK/AUDIO CONTROL SECTION
- G. POWER SUPPLY UNIT SECTION



Position two modules (X, Y) on top of each other.

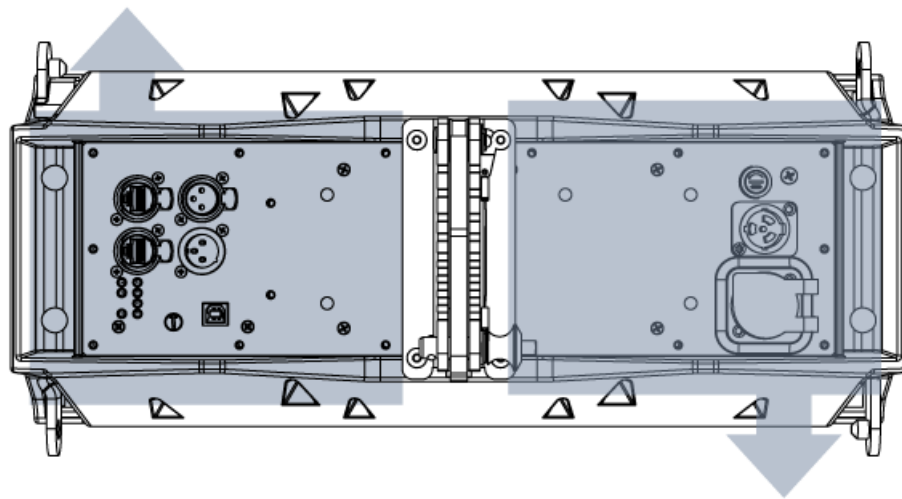
On the front side, the integrated pin of bracket E must be inserted into the hole of bracket A and the pin of bracket B into the hole of bracket D. The safety lock, highlighted in red, clicks into place. In case of disassembly, this lock must be lifted before carrying out the relevant operations.

On the rear side, the joint of the lower module must be inserted into the bracket of the upper module and the pin must be inserted in the position relating to the desired angle.

The permissible angles are indicated on the bracket itself, including also the "PIN HOLDER" hole for storing the pin in case of transport with the module disassembled.

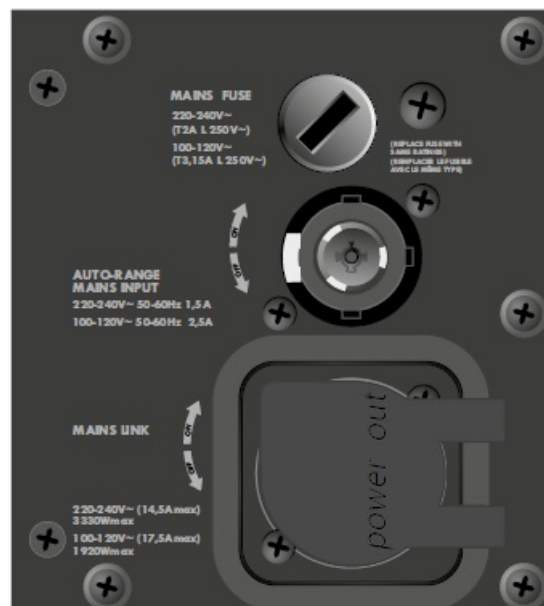
FEATURES OF THE AMPLIFIER AND CONTROL SECTIONS

The class D digital amplifier is the heart of the DVA MINI G2 modules. It allows delivering up to 400 W RMS, silently and efficiently, without ventilation. System is controlled by a powerful DSP allowing an immediate and quick configuration of the line array in any context of use.



The DIGIPRO G3 panel is made up of:

- Input, Output and Control Section
- Power Supply Unit Section



WARNING!

- Protect the unit from moisture.
- Never attempt to disassemble the amplifier in any way.
- In the event of a malfunction, remove power supply immediately by disconnecting the unit from the power mains and contact an authorised repair centre.

INPUT, OUTPUT AND CONTROL SECTION

1. **AUDIO INPUT AND OUTPUT LINK (BALANCED)** Balanced XLR connector that allows connecting a line INPUT. A similar type of connector is used to link the output signal to a second module (OUTPUT LINK)

2. **DSP PRESET**

It allows setting the necessary optimisation of high frequencies in line arrays depending on the distance and number of modules.

3. **RDNet DATA IN and RDNet DATA OUT**

RDNet data input and output compatible with network cables fitted with etherCON/RJ45 type connectors.

“Data in” must be connected to devices such as RDNet Control 2 or Control 8.

“Data Out” is used to link the network to other loudspeakers in daisy-chain configuration.

4. **RDNet CONTROL LEDs**

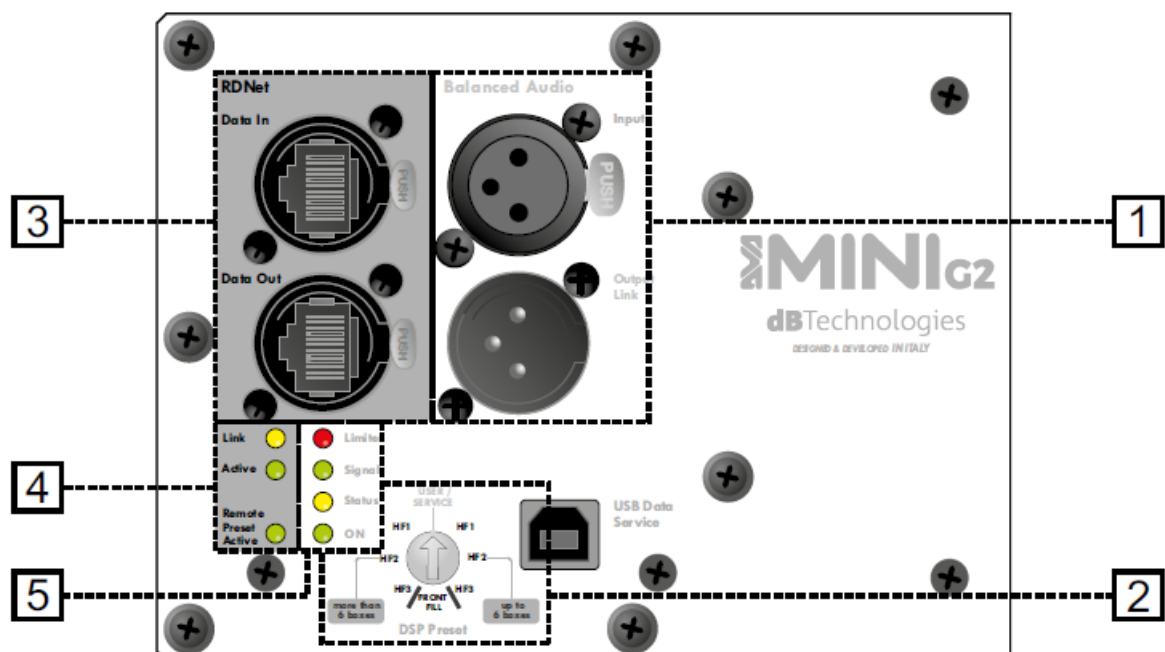
LEDs relating to module network operation (RDNet).

In particular, if “Link” is on the RDNet network is active and has acknowledged the device,

if “Active” is flashing there is data traffic, if “Remote Preset Active” is on all local control on the amplifier panel are by-passed by the RDNet remote control.

5. **STATUS LED Main**

LEDs show monitor status indications at a glance, according to the logic summarised in the table below:



SERVICE DATA USB PORT

This standard USB Type-B port enables user to update product firmware using a PC and USB BURNER MANAGER. More details are available at <http://www.dbtechnologies.com> under “DOWNLOADS” and in section FIRMWARE UPDATES.

OPERA UNICA	Limiter ●	Signal ●	Status ●	ON ●
Accensione	<i>SPENTO</i>	<i>SPENTO</i>	<i>ACCESO FISSO PER QUALCHE SECONDO</i>	<i>SPENTO</i>
Utilizzo	<i>ATTIVO</i>	<i>ATTIVO</i>	<i>SPENTO</i>	<i>ACCESO FISSO</i>
Anomalia parziale	<i>ATTIVO</i>	<i>ATTIVO</i>	<i>ACCESO CICLICO</i>	<i>ACCESO FISSO</i>
Anomalia totale	<i>LAMPEGGIO CICLICO</i>	<i>SPENTO</i>	<i>ACCESO FISSO</i>	<i>SPENTO</i>

POWER SUPPLY UNIT SECTION

16. AUTO-RANGE MAINS INPUT

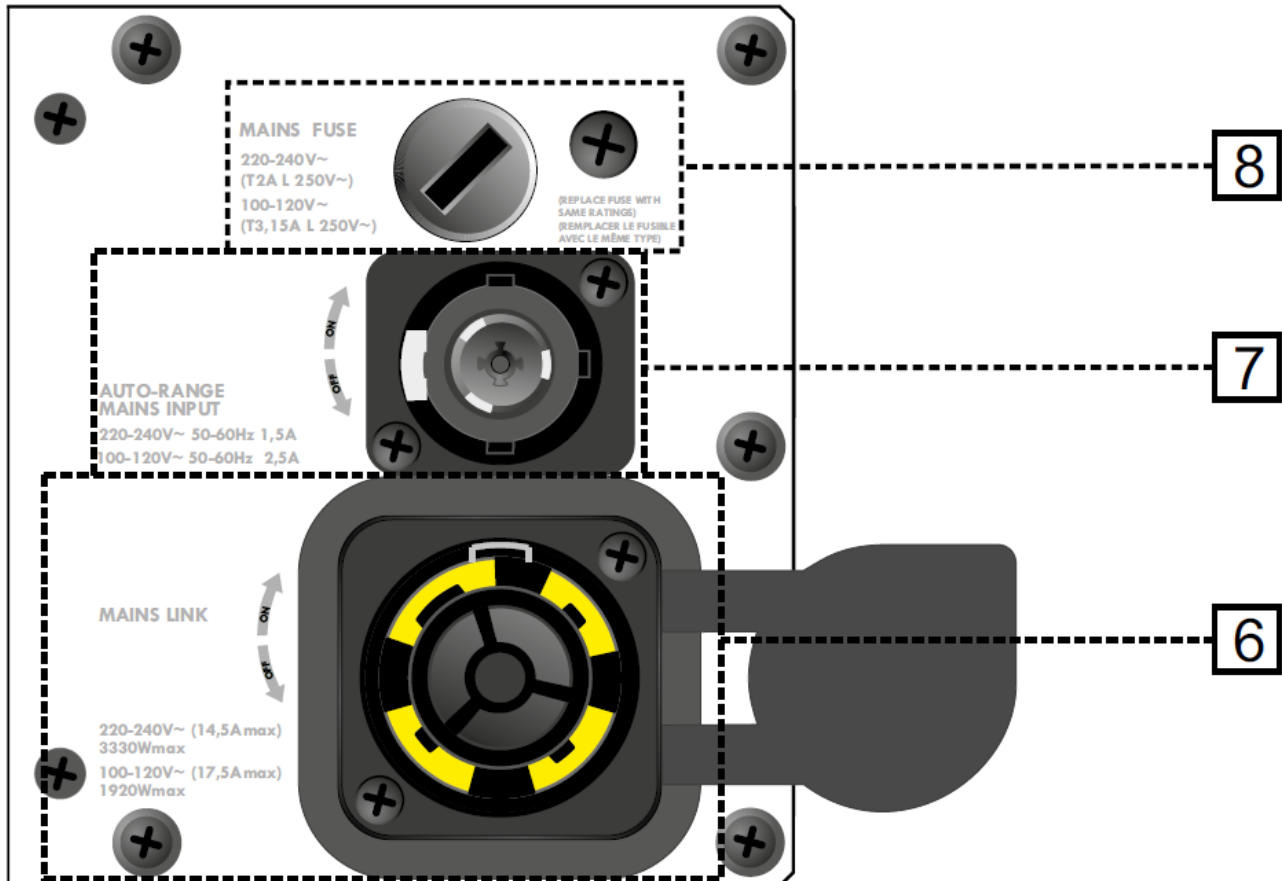
Input for POWERCON® TRUE1 connector.

12. "MAINS LINK" POWER OUTPUT

This connector is intended to supply power to a second module.

13. MAINS FUSE

Mains fuse.



ATTENTION!

The fuse installed at the factory is rated for operation in the 220-240 V voltage range. If you need to operate the speaker in the 100-120 V range:

1. Disconnect all connections, including the power supply connection.
2. Wait 5 minutes.
3. Replace the fuse with the fuse rated for the 100-120 V range, which is included in the package.
4. Use only the supplied power supply cable.

Use the SERVICE DATA USB port to update product firmware only. Do not connect any USB devices to the unit to avoid damage or malfunctioning.

FIRST START-UP AND INSTALLATION

PACKAGE CONTENTS

When you open the LVX XM12 speaker package, ensure that all contents are present. The package contains:

- DVA MINI G2
- quick start user manual and warranty documents
- fuse rated for operation in the 100-120V voltage range

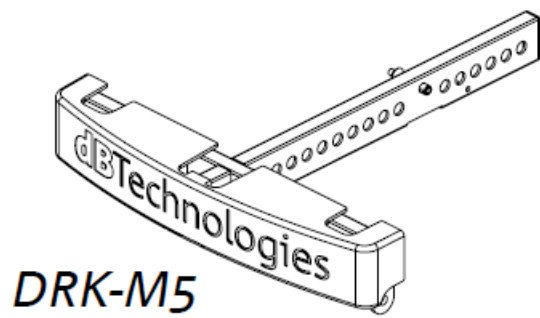
ATTENTION!

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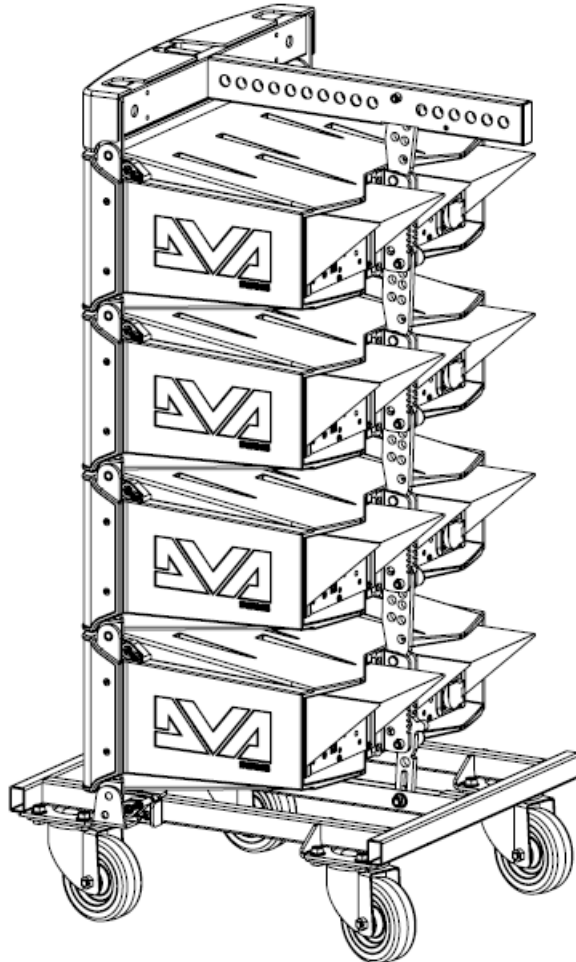
1. Disconnect all connections, including the power supply connection.
2. Wait 5 minutes.
3. Replace the fuse with the fuse rated for the 100-120 V range, which is included in the package.
4. Use only the supplied power supply cable.

INSTALLATION

A complete set of accessories (DRK-M5 and DT-8MINI as well as other ones that can be viewed on the website at www.dbtechnologies.com) enables fast and effective installation. Purely indicative illustrations are shown below to show installation. For any information on accessories, please follow the relevant instructions. For examples of connections, see the section below.



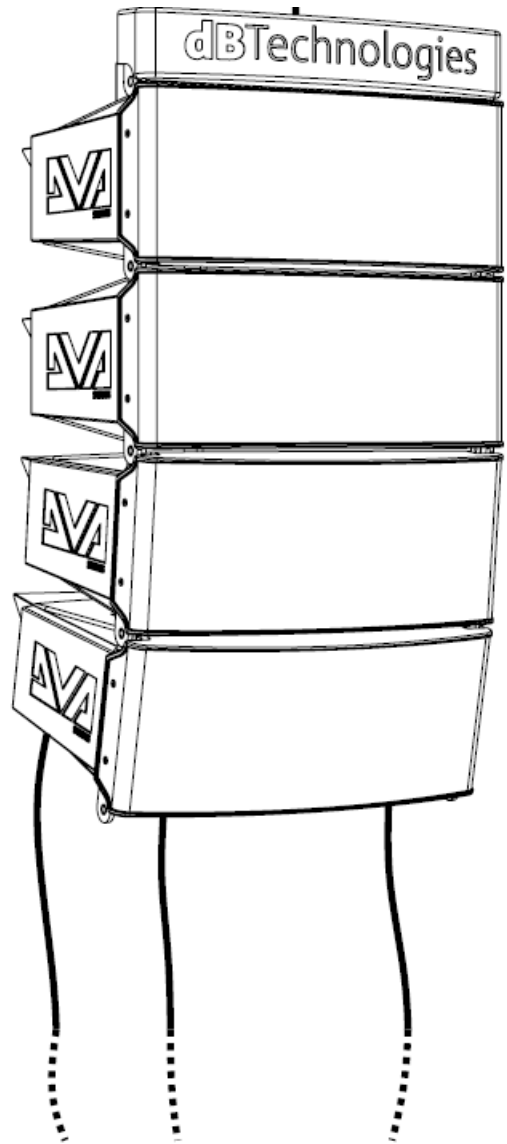
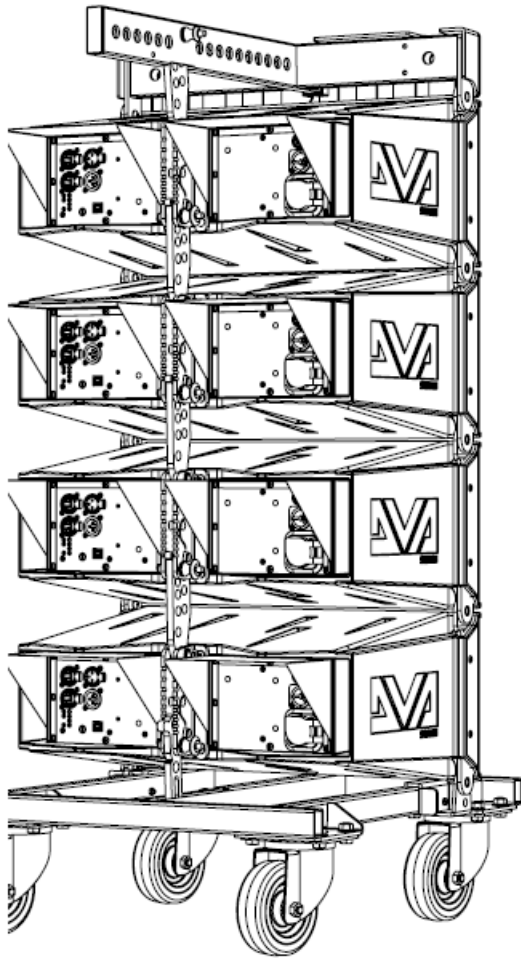
DRK-M5

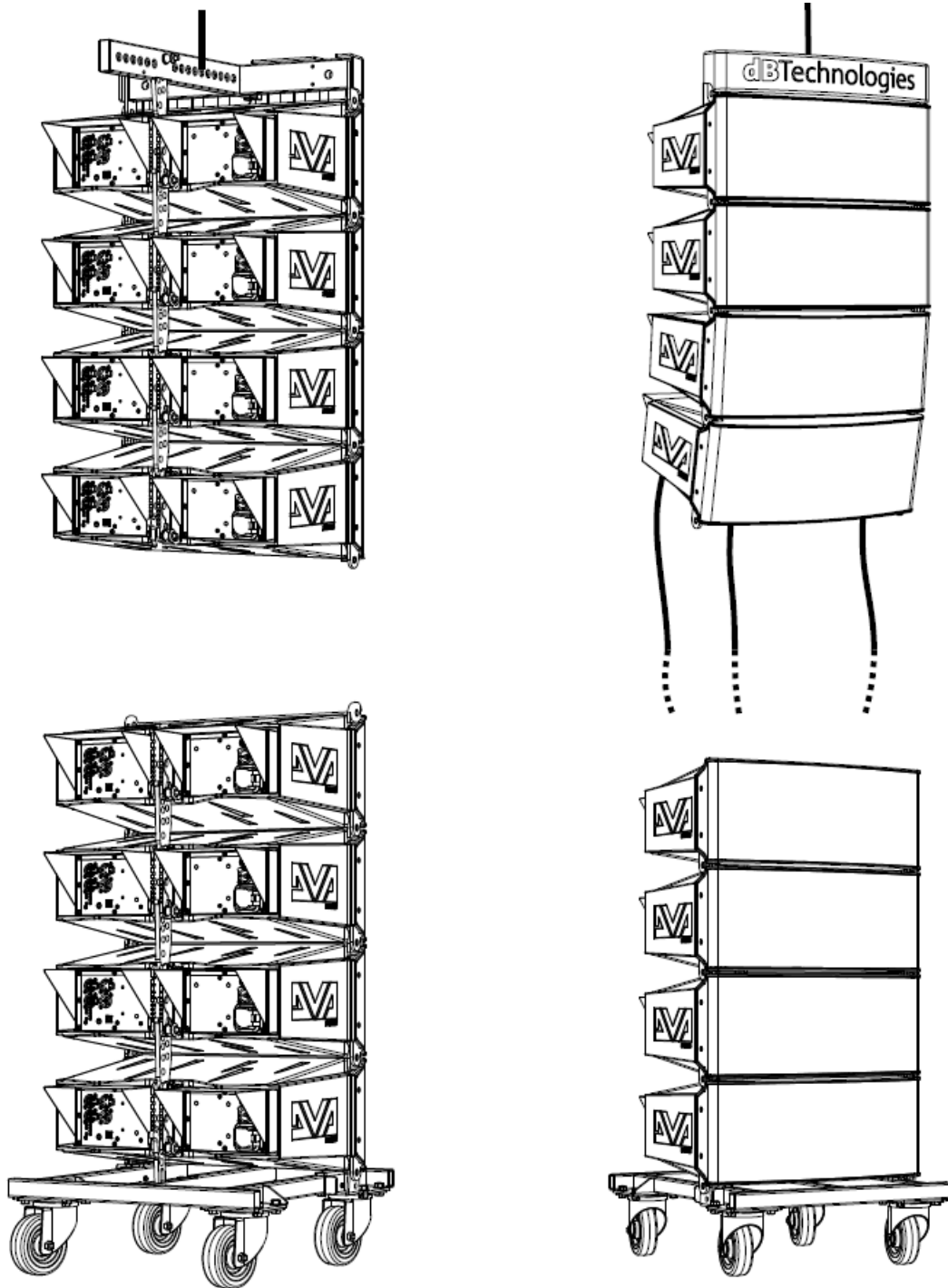


DT-8MINI

ATTENTION!

The product and accessories must be handled by experienced personnel only! Make sure that the installation is positioned in a stable and safe manner in order to avoid hazardous conditions for people, animals and/or objects. The user is required to follow regulations and mandatory laws on safety of the country in which the product is used. For safe use, regularly check the operation of all parts and integrity before use. Design, calculations, installation, testing and maintenance of suspended systems or professional audio stacks must be performed by authorized personnel only. AEB Industriale is not responsible for improper installations, non-compliant with safety requirements.



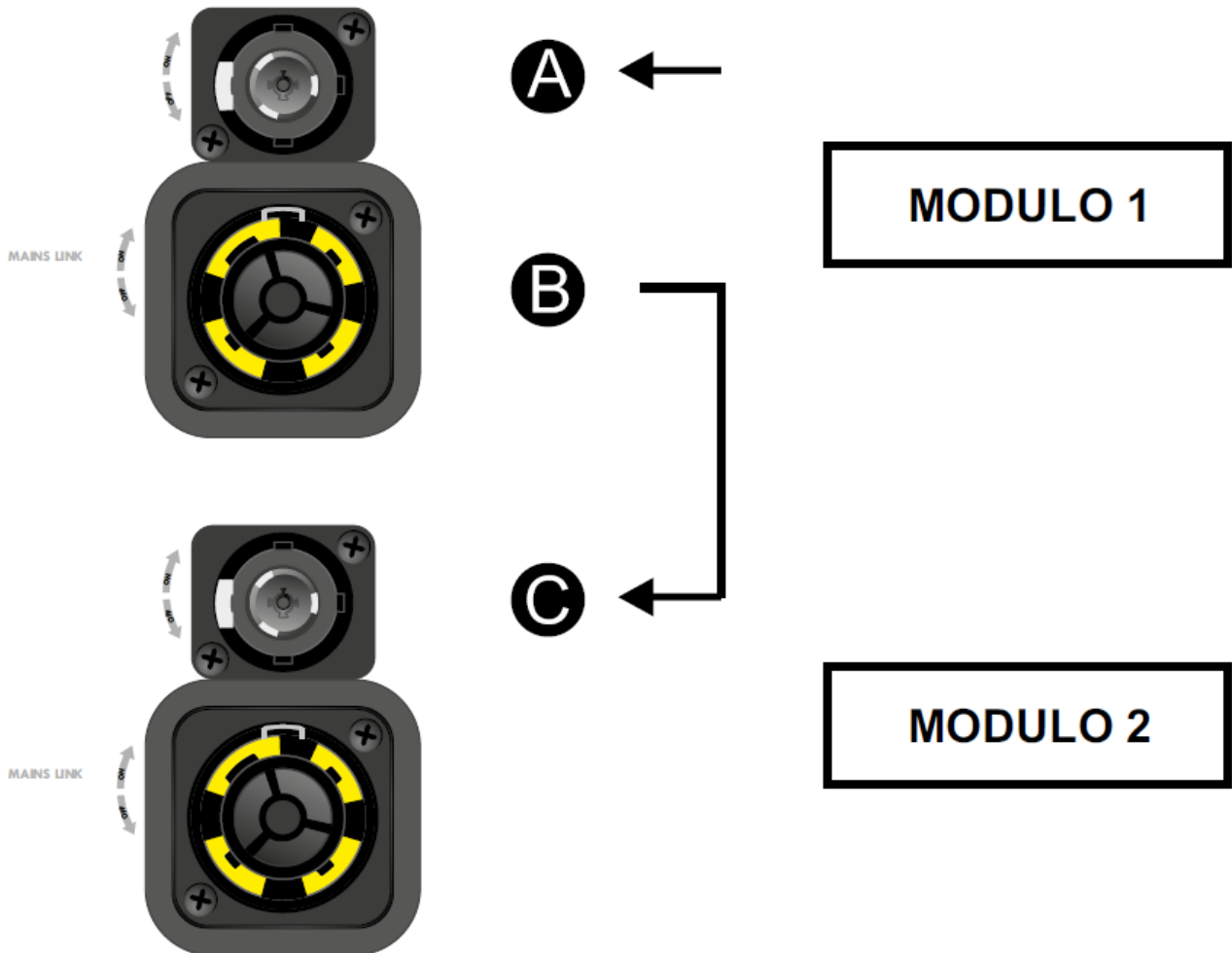


- Use DBTECHNOLOGIES COMPOSER to set project parameters.
- Make sure that the local parameters of the different modules are correctly set on the single amplifier panels. In particular, check the DSP settings according to design. As an alternative, all parameters can be remotely edited in real time if the line array connection is carried out through the RDNet network (AURORA NET). Nevertheless, in this case, project initial settings should be physically repeated on the modules.
- Transport, through DT-8MINI, the first 4 modules and DRK-M5 fly-bar to the spot in which the line array will be lifted. Have a second dolly (with no fly-bar) ready with other 4 modules for the following assembly stages of the complete line array.
- Fix the brakes on the dolly wheels.
- Fit the first 4 modules with fly-bar according to the instructions above and to accessory instructions.
- Hoist the first 4 modules using a motor and suitable rigging equipment (not supplied) and then continue with the next modules with the second dolly. The connections suggested are for information only.

CONNECTION AND POWER DAISY CHAIN

The figure below shows a general connection where a module 1 is above a module 2. For this purpose, use cables with powerCON TRUE1® connectors (not provided).

- Connect the power supply of module 1 AUTO-RANGE MAINS INPUT (A).
- Daisy-chain the power supply from module 1 to module 2, connecting MAINS LINK output (B) of module 1 to AUTO-RANGE MAINS INPUT (C) of module 2.
- Repeat this procedure until connecting the maximum permitted number of the line array modules (refer to section SPECIFICATIONS).

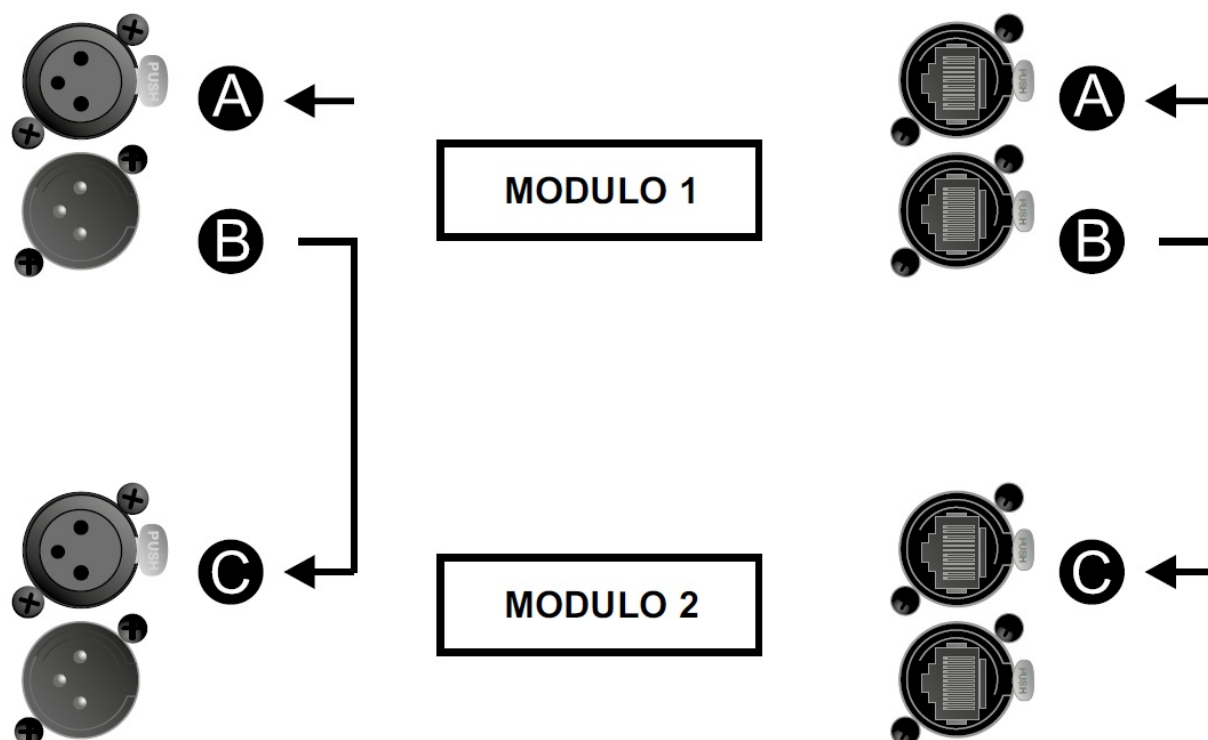


AUDIO AND RDNET CONNECTIONS

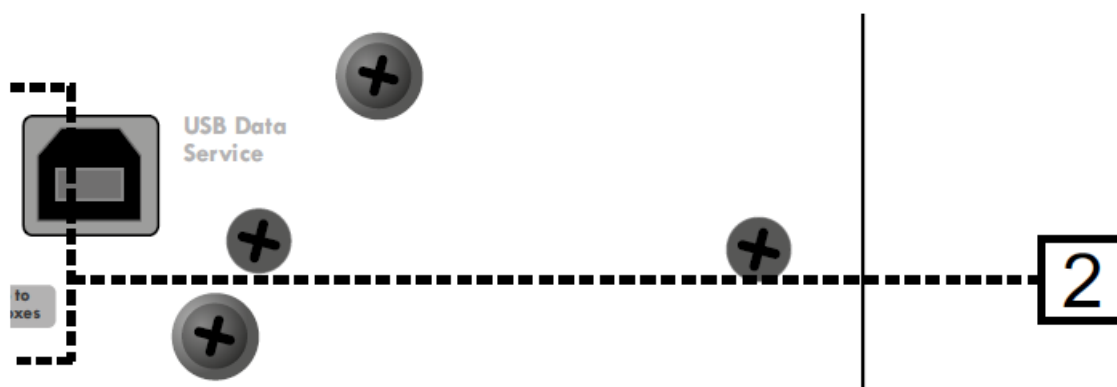
The figure above shows a general connection where a module 1 is above a module 2, showing the audio and network connections. To this end, use the not supplied cables with XLR (audio) and etherCON/RJ45 (network) connectors. For further information on the available types of cables, refer also to the image in next page.

- For the audio connection, connect the cable originating from MIXER/LINE to the BALANCED AUDIO INPUT (A) of module 1 of the line array. Re-link the signal between the first and the second module. For this purpose, connect the output BALANCED AUDIO OUTPUT/LINK (B) of module 1 to the BALANCED AUDIO INPUT (C) of module 2.
- Repeat the operation between the second and the third module and so on, until all modules of the line array are connected.
- For network connection, connect DATA IN connector (A) of module 1 to remote controller (RDNet CONTROL 2 or RDNet CONTROL 8). Re-link the signal by connecting DATA OUT (B) of module 1 to DATA IN (C) of module 2.

- Repeat the operation between the second and the third module and so on, until all modules of the line array are connected.



FIRMWARE UPDATES



1. Download and install on your PC the USB BURNER MANAGER under the “SOFTWARE & CONTROLLER” section.
2. Download the .zip file of the latest firmware in the “DOWNLOADS” section of your product.
3. Connect the product to the PC using a USB cable (not provided) with a suitable connector type (see this detail in the FEATURES OF THE AMPLIFICATION AND CONTROL SECTION chapter).
4. In the top right corner of the USB BURNER MANAGER screen, select “File Opening”.
5. Select the file containing the previously downloaded firmware.
6. Follow the operations shown on the screen.
7. Click “UPDATE”.

TROUBLESHOOTING

The loudspeaker will not turn on:

1. Check that power supply is present upstream of the installation.
2. Check that the power supply or the re-link connection of the power supply is properly inserted

The speaker turns on but produces no sound:

1. Check that the audio signal input connections or the audio signal re-links are properly carried out.
2. Check that the audio source (mixer) is properly connected and active.
3. In case of RDNet network connection and control with AURORA NET, check that the MUTE function is disabled

Speaker sound is unsatisfactory:

1. Re-check the project, the installation and configuration specifications using DB TECHNOLOGIES COMPOSER.
2. Verify that the DSP PRESET parameters are actually replicated on the control panel of the module (especially if the remote control of the modules is not used).
3. Check that, in case of RDNet network connection and control with AURORA NET, all the parameters are properly set.

SPECIFICATIONS

ACOUSTICAL SPECIFICATIONS

Frequency response [- 10 dB]:	75 – 20000 Hz
Frequency response [- 6 dB]:	80 – 19000 Hz
Max SPL:	131 dB (frequency/preset dependent)
HF:	2 x 0.75" (Voice Coil 3")
Type of HF transducer:	Neodymium
LF:	2 x 6.5" (Voice Coil: 1.75")
Type of LF transducer:	Neodymium
Horizontal directivity:	100°
Vertical directivity:	variable, depending on the configuration and the number of modules

AMPLIFIER

Type:	Digipro® G3
Amplification class:	Class D
Amplification power (Peak)	800 W
Amplification power (RMS):	400 W
Power supply:	Auto-range
Cooling technique:	Convection
Operating temperature range (ambient) :	from -10° to + +40° [°C]

PROCESSOR

Internal controller:	28-bit/56-bit DSP
AD/DA conversion:	24 bit / 48 kHz
DSP advanced functions:	Linear-phase FIR filters

USER INTERFACE

Controls:	PRESET rotary encoder
Status LEDs	Status, On, Signal, Limiter
RDNNet interface LED	Link, Active, Remote Preset Active

INPUTS AND OUTPUTS

Power supply inputs and re-links:	PowerCON® True In/Link
Audio inputs:	1x XLR IN balanced
Audio outputs:	1x XLR link OUT balanced
RDNNet inputs/outputs:	Data In / Data Out (etherCON® connectors)
USB (firmware update):	1x USB MINI type B

SOFTWARE COMPATIBILITY

Predictive/testing software	dBTechnologies COMPOSER
Remote control software:	AURORA NET

POWER SUPPLY SPECIFICATIONS (ABSORPTION)

Absorption at 1/8th of power in average use conditions (*):	0.6 A (230V~) – 1.1 A (115V~)
Absorption at 1/3rd of power in maximum use conditions (**):	1.5 A (230V~) – 2.6 A (115V~)
Absorption with speaker on in no-signal condition (idle):	15 W
Inrush current:	20.4 A
Max number of modules per power supply line (**) [mains input + mains link]:	1 + 9 (220-240V~) / 1 + 6 (100-120V~)

* NOTE FOR INSTALLER: Values refer to 1/8th of power, under average operating conditions (music programme with occasional or no clipping). For any type of configuration we recommend to consider them as minimum sizing values.

** NOTE FOR INSTALLER: Values refer to 1/3rd of power, under heavy operating conditions (music programme with frequent clipping and limiter activation). In case of professional installations and tours we recommend sizing according to these values.


MECHANICAL SPECIFICATIONS

Material:	Polypropylene
Grille:	full metal – CNC machining
Installation front pre-settings:	Quick-coupling brackets
Installation rear pre-settings:	Graduated bracket and movable joint with quick-release pins
Flown and stacked assembly:	With dedicated accessories
Width:	460 mm (18.1 inches)
Height:	190 mm (7.5 inches)
Depth:	345 mm (13.6 inches)
Weight:	8.4 kg (18.5 lbs)

Product features, specifications and appearance are subject to changes without prior notice. dBTechnologies reserves the right to make changes or improvements in design or manufacture without any obligation to incorporate such changes or improvements in products manufactured before their introduction.

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Documents / Resources

	<p>dB DVA MINI G2 [pdf] User Manual DVA, MINI G2, Active, 2-way, Line Array, Module</p>
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