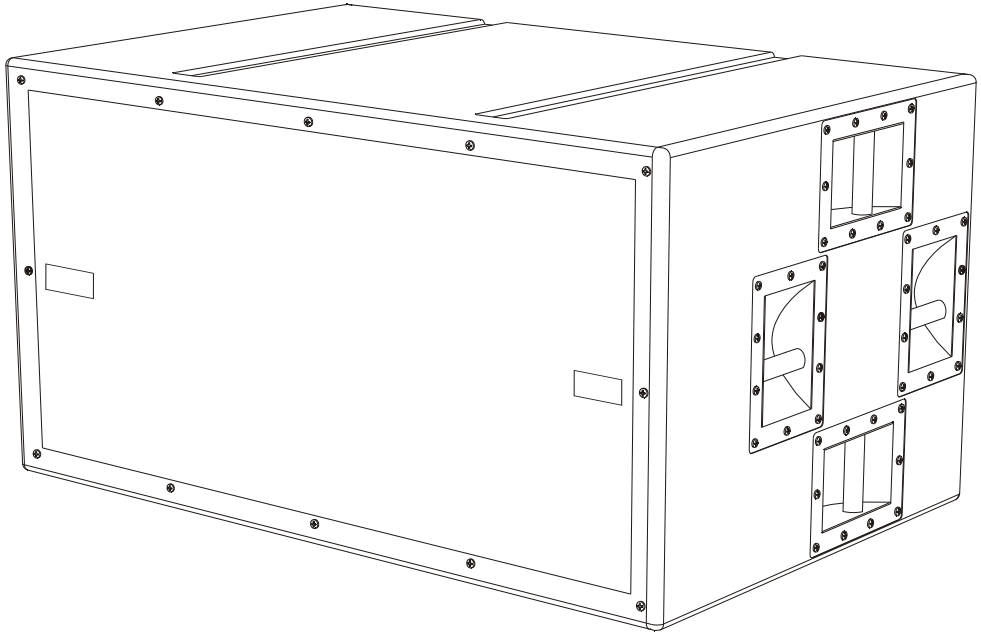
VMS20dp

ACTIVE SUBWOOFER



digipro digital power

MANUALE d'USO - Sezione 1
USER MANUAL - Section 1
BEDIENUNGSANLEITUNG - Abschnitt 1
CARACTERISTIQUES TECHNIQUES - Section 1

CE Made in Italy

COD. 420120169 Rev 4.0

dB TECHNOLOGIES
THE SOUND OF EXPERIENCE

A.E.B. INDUSTRIALE s.r.l.
Via Brodolini, 8 - 40056 Crespellano (Bo) - ITALIA
Tel. + 39 051 969870 - Fax. + 39 051 969725
Internet: www.dbtechnologies.com
E-mail: info@dbtechnologies-aeb.com

CONTROLS AND FUNCTIONS

1) **"MAINS FUSE" FUSE CARRIER**
Mains fuse housing.

2) **"FULL RANGE MAINS INPUT" POWER SOCKET**
For connecting the power cable provided.
The connector used for mains connection is a POWER CON® (blue)

3) **COOLING GRILLE**
These grilles permit cooling the amplifier during operation.
Do not block accesses and clean the grilles whenever necessary to ensure correct air circulation.

4) **" BALANCED MAIN INPUT" INPUT CONNECTOR**
Balanced input at line level (0 dBu).
It is able to accept "XLR" sockets.

5) **"LINK" OUTPUT CONNECTOR**
The "XLR" connector connected in parallel with input (4) can be used to send the input audio signal to another amplified speaker.

6) **"BALANCED X-OVER OUTPUT" OUTPUT CONNECTOR**
Internal crossover balanced output. The signal from this output can be sent to any other amplified speaker.
The crossover frequency can be selected by means of the "SUB X-OVER" switch (7).

7) **"SUB X-OVER" SWITCH**
This switch permits selection of crossover frequency between the sub woofer and the speakers connected to the "BALANCED X-OVER OUTPUT" connector.
The crossing frequency is selected to 90Hz or 120Hz with a slope of 24dB/oct.
The frequency choice depends to the sound reproduction desire.

8) **"SUB PHASE " SWITCH**
This switch permits 180° rotation of the audio signal reproduced by subwoofer.
Rotation makes for easier optimization of low-frequency reproduction even in the most difficult installation situations. After completing installation, reproduce a piece of music and adjust the switch to obtain the best low-frequency sound.

9) **"ON" INDICATOR LIGHT**
The "ON" indicator light comes on green to indicate the amplifier is switched on and it is working properly.

10) **"SGN" INDICATOR LIGHT**
This indicator comes on green to indicate the presence of the audio signal (at a level of -20dB).

11) **"LIM" INDICATOR LIGHT**
This indicator comes on red to indicate that the internal limiter circuit has tripped.
This prevents amplifier distortion and protects the speakers against overloads.
It is lights for a few seconds during the switching on.

12) **"SUB WOOFER LEVEL" INPUT SENSITIVITY CONTROL**
This control regulates the sensitivity of the signal at amplifier input.
This control does not affect the "LINK" and "BALANCED X-OVER OUTPUT" output levels

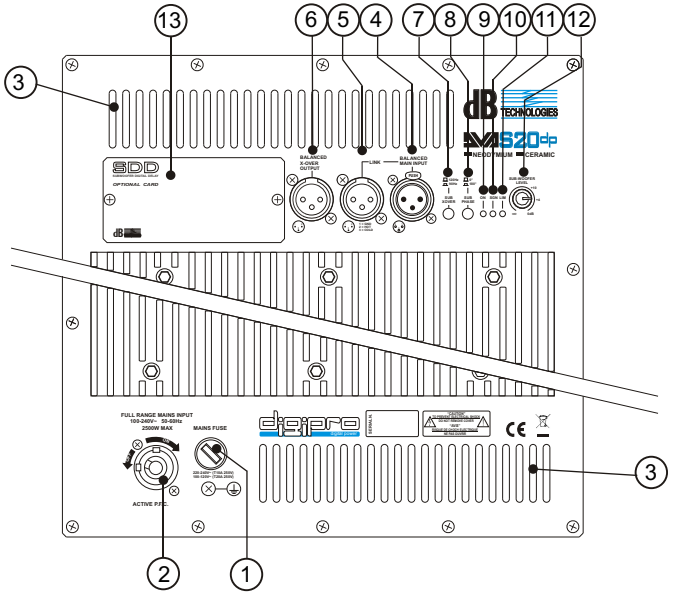
13) **DIGITAL DELAY "SDD - SUBWOOFER DIGITAL DELAY" OPTION**
The DVA S20dp loudspeaker can be equipped with a delay module (SDD - SUBWOOFER DIGITAL DELAY) that allows to delay the sound signal reproduced by the subwoofer. This circuit allows sound-alignment between line array and sub by balancing the various positions.
The circuit also includes a balanced "XLR" output that sends the delayed audio signal to other subwoofers. By using a single delay module it is possible to delay several subwoofers at the same time.
This module can also be used to create cardioid configuration systems. The cardioid configuration provides a remarkable attenuation of the low frequencies radiated by the rear side of the subs, without changing the direct radiated signal on the front side.
This configuration needs at least 3 subwoofers (two with front radiation and one with rear radiation equipped with SDD module). See appendix for more details.

EMI CLASSIFICATION

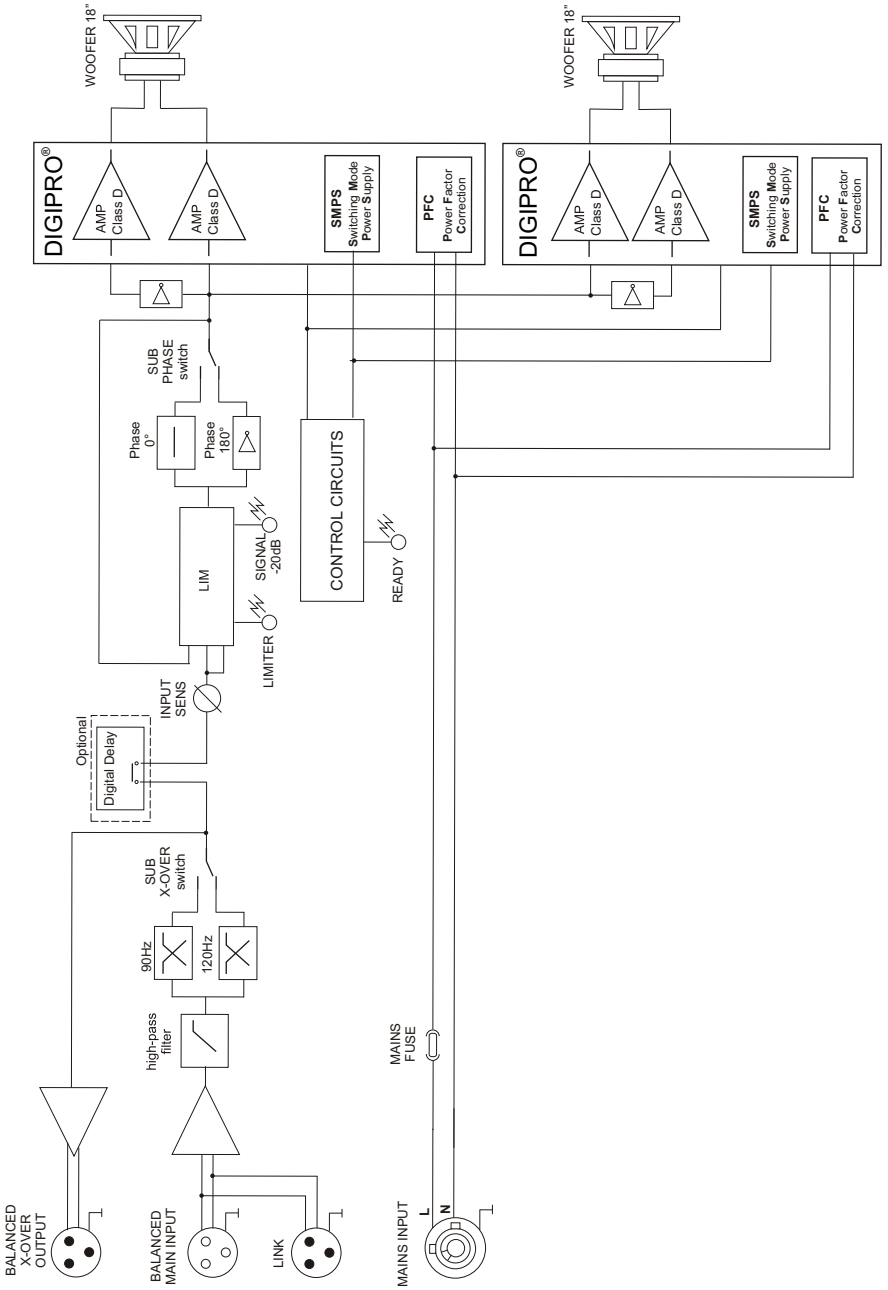
According to the standards EN 55103 this equipment is designed and suitable to operate in E5 Electromagnetic environment.

TECHNICAL SPECIFICATION

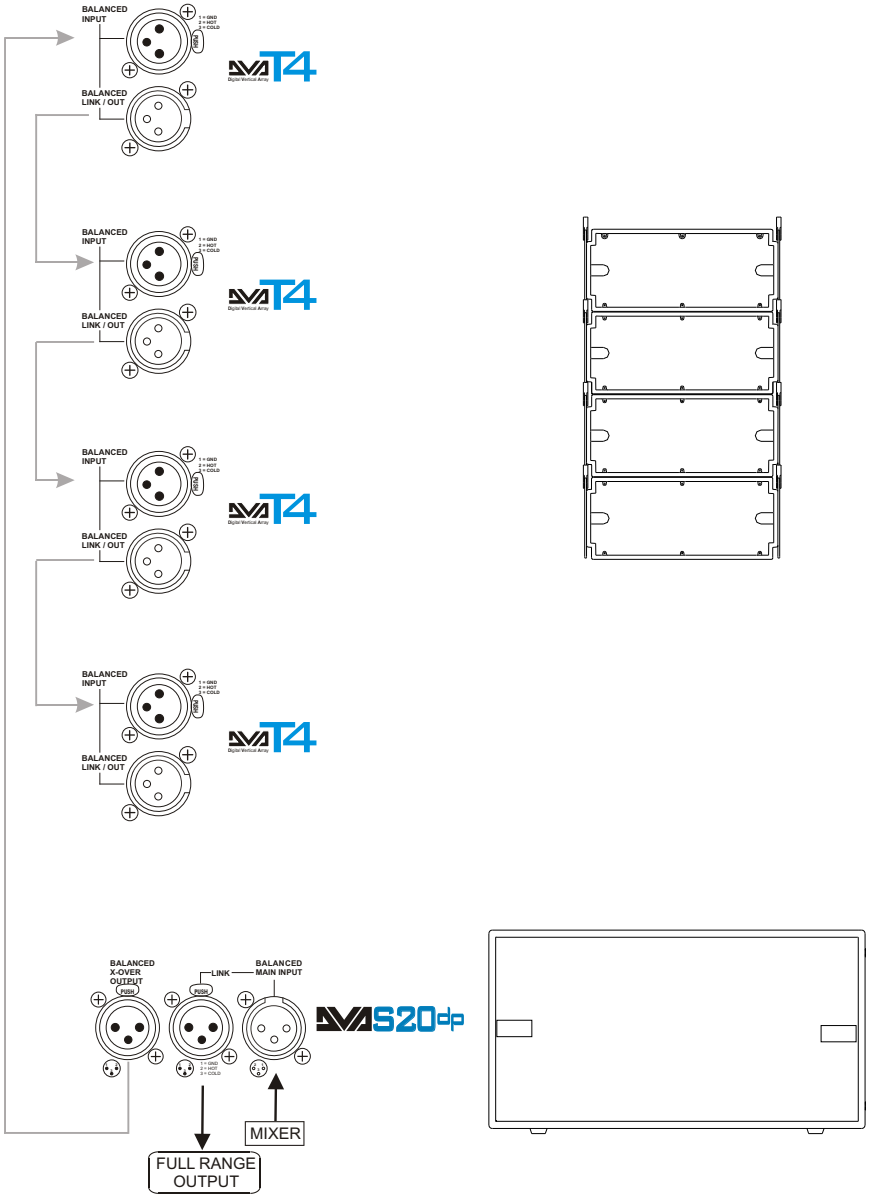
System	Active
Type of amplifier	Digital - Class D (DIGIPRO®)
RMS power	2000 W (1000 W + 1000 W)
Musical power	4000 W
Frequency responce +/-3dB	25-150Hz
Crossover	90 - 120Hz (24dB/oct) selecting
Sound pressure (SPL)	138dB peak
Woofer	2 x woofer 18"- 4" voice coil Neodymium or Ceramic
Input sensitivity nominal	0 dBu
Impedance input Balanced	20Kohm
Unbalanced	10Kohm
Power supply	Full-range with PFC, 100-240Vac, 50-60Hz
Speaker shape	rectangular
Dimension [WxHxD]	1100x720x580mm
Weight	Neodymium 77Kg - Ceramic 84Kg



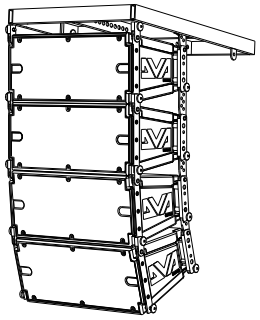
SCHEMA A BLOCCHI
BLOCK DIAGRAM
BLOCKSCHALTBILD
DIAGRAMA EM BLOQUES

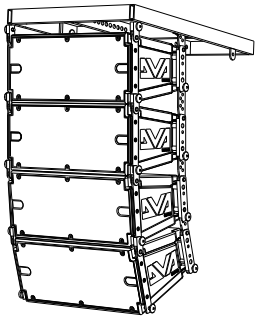


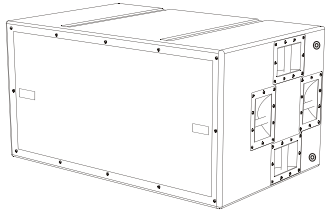
COLLEGAMENTI
CABLE CONNECTIONS
VERKABELUNG
CABLAGE

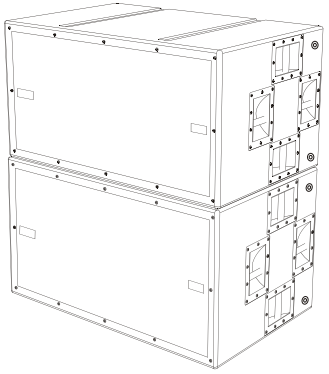


INSTALLAZIONE
INSTALLATION
INSTALLATIONEN
INSTALLATIONS



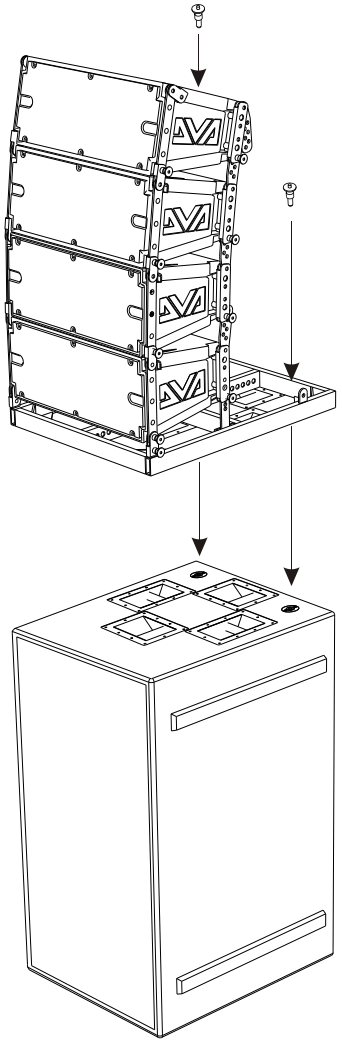


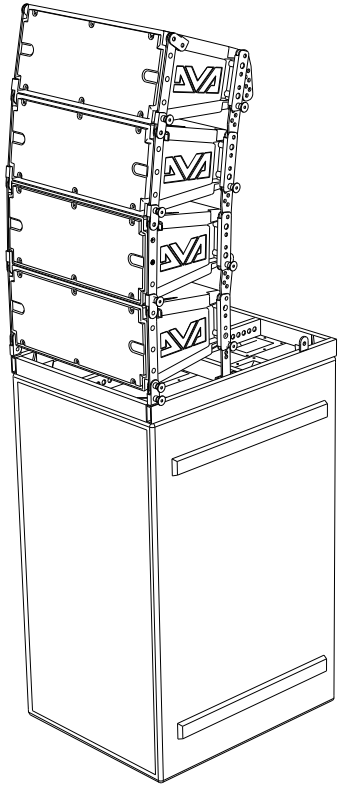




Utilizzo in appoggio
Supported use
Anwendung mit Aufstützung
Utilisation en appui

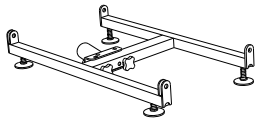
Impilato
Stacked
Aufgesetzt
Empilée



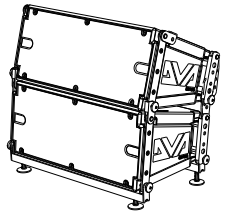


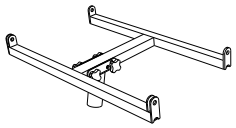
Utilizzo in appoggio verticale (DVA T4 montaggio “Ground stacking”)
Supported use (DVA T4 ““Ground stacking” assembling)
Anwendung mit Aufstützung (DVA T4 ““Ground stacking” Zusammenbauen)
Utilisation en appui (DVA T4 ““Ground stacking” installation)

Opzione DSA 4
DSA 4 Option

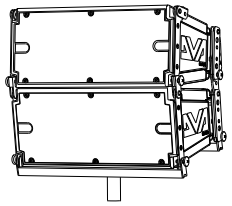


In appoggio
Floor stack

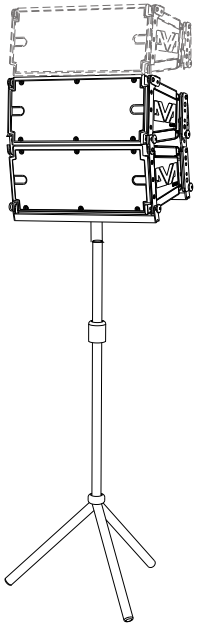


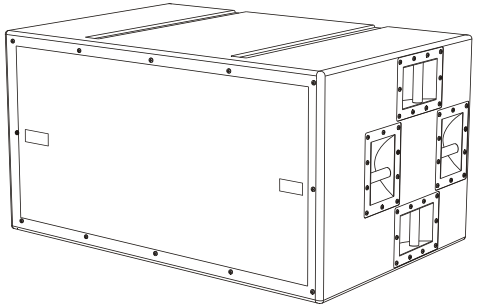


Per supporto asta
Stand adaptor

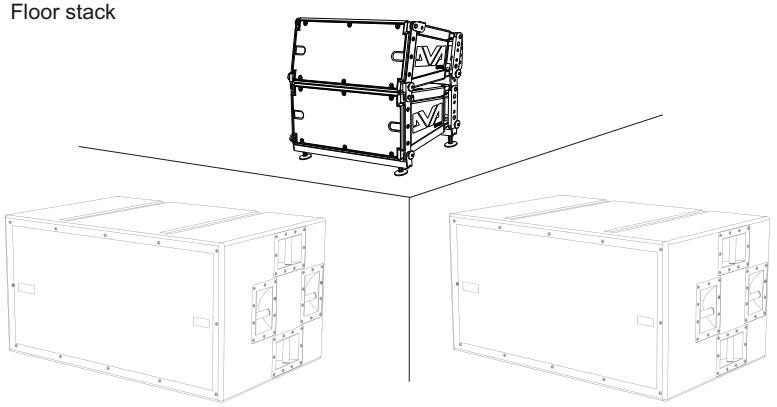


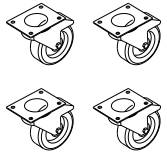
Per supporto asta
Stand adaptor



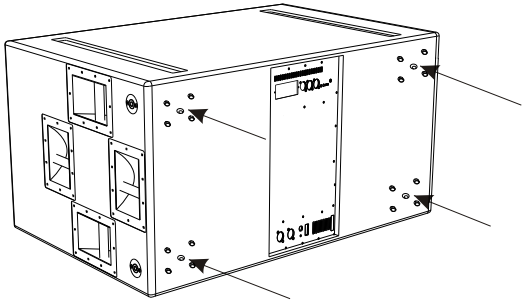


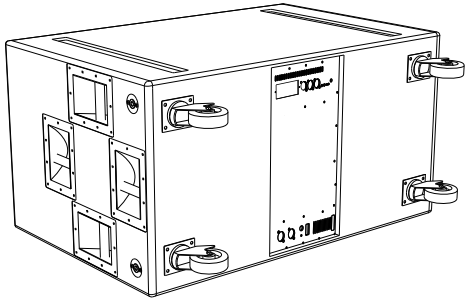
In appoggio
Floor stack

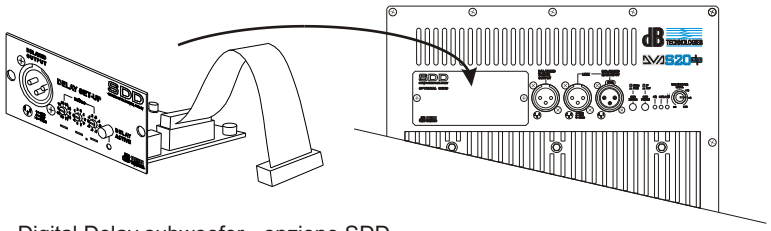




Set di 4 ruote - opzione DWK 20
Set of 4 wheels - DWK 20 option

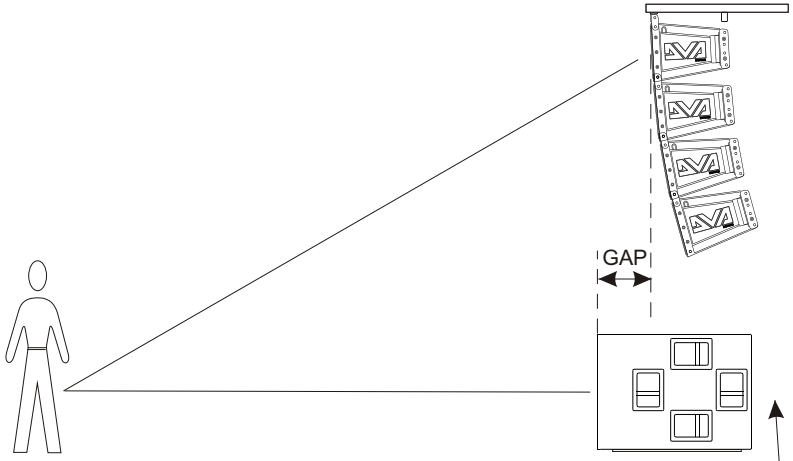






Digital Delay subwoofer - opzione SDD
Subwoofer Digital Delay - SDD option

ALLINEAMENTO SEGNALE AUDIO
ALIGNAMENT AUDIO SIGNAL



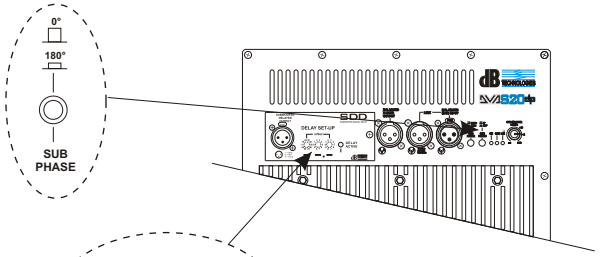
Delay setup = (GAP X 1000) / 344

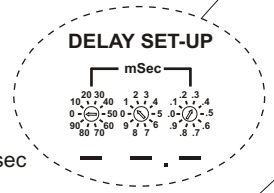
Delay = ms (espresso in millisecondi)
GAP = m (espresso in metri)
Velocità suono = 344 m/s

Delay = ms (specify milliseconds)
GAP = m (specify meters)
Sound speed = 344 m/s

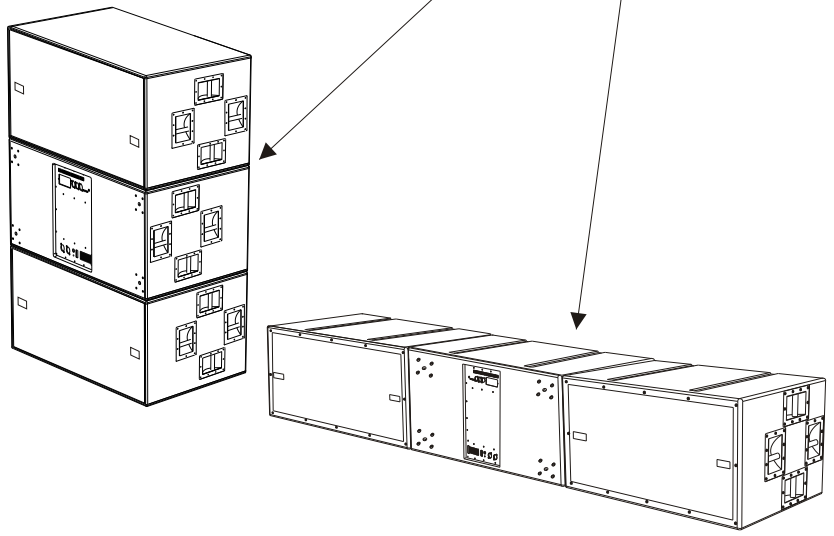
CONFIGURAZIONE CARDIOIDE
CARDIOID CONFIGURATION

Ruotare la fase di 180°
Rotate 180° phase





Impostare il delay a 4,5msec
Set delay to 4,5msec



ISTRUZIONI DI SICUREZZA PER ACCESSORI / SAFETY INSTRUCTIONS FOR ACCESSORIES
ZUBEHÖR SICHERHEITSHINWEISE / INSTRUCTIONS DE SÉCURITÉ POUR LES ACCESSOIRES

Contattare dB Technologies per gli accessori da utilizzare a corredo.
Si declina ogni responsabilità da un utilizzo inappropriato degli accessori o di dispositivi aggiuntivi non idonei allo scopo.

Contact dB Technologies for accessories to be used with speakers.
Will not accept any responsibilty when inappropriate accessories or not suitable additional devices are used.

Kontaktieren sie dBTechnologies für passendes Lautsprecherzubehör.
Falls unpassendes Zubehör verwendet wird, wird jegliche Haftung ausgeschlossen.

Contact dBTechnologies pour les accessoires à utiliser avec la machine.
N'accepterons pas toutes les responsabilités lorsque des accessoires inappropriés ou ne conviennent pas à des dispositifs supplémentaires sont utilisés.

Italiano

DVA Composer - Simulazione acustica di sistemi serie DVA

DVA Composer è un software di puntamento e simulazione acustica per tutti i modelli Line Array della serie DVA e relativi Subwoofers.
Tale software permette di gestire un sistema stereo composto da line array e subs, simulando separatamente la risposta acustica di entrambi.
Vengono inoltre fornite all'utente una serie di informazioni quali allineamento in fase tra i sistemi sospesi e i relativi subwoofer a terra e vengono suggeriti angoli ottimali tra i moduli line array e relativi preset di equalizzazione, al fine di ottimizzare le performance del sistema anche per utenti non esperti.



Si raccomanda di scaricare gratuitamente il software DVA_Composer direttamente dal sito dB Technologies (www.dbtechnologies.com) nella sezione dedicata «Software & Controller»

English

DVA Composer Acoustical Simulation and aiming for DVA Systems

DVA Composer is a 2D software for aiming and simulating acoustical response of all line arrays and Subwoofers from DVA Series.
The software allows you to set up a stereo system composed by tops and subs, and simulates separately the acoustical response of both.
DVA Composer also gives to the user all the information about phase alignment between flown systems and ground stacked subwoofers, as well as it suggests an optimized aiming of the line arrays modules and their suggested EQ presets, in order to guarantee maximum performances even for non-expert customers.



It is recommended to download DVA_Composer free software directly from dB Technologies (www.dbtechnologies.com) in the special section « Software & Controller»

Deutsch

DVA Composer Akustiksimulation für Systeme der Serie DVA

DVA Composer ist eine Software zur Beschallungsplanung und simulation für alle Line Array-Modelle der Serie DVA und den zugehörigen Subwoofern.
Sie ermöglicht die Verwaltung eines Stereosystems, das aus Line Arrays und Subwoofern besteht, wobei das akustische Ansprechprofil jeweils separat simuliert wird.
Dem Nutzer werden eine Reihe von Daten geliefert, z.B. die Phasenanpassung zwischen den Hängesystemen und den entsprechenden Subwoofern am Boden. Außerdem werden die optimalen Winkel zwischen den Line Array-Modulen und den entsprechenden Equalizer-Presets angegeben, so dass auch weniger erfahrene Benutzer die Leistungen des Systems optimieren können.



Wir empfehlen, die Software DVA_Composer direkt von der Webseite dB Technologies (www.dbtechnologies.com) im Abschnitt «software & Controller» herunterzuladen

Français

DVA Composer Simulation acoustique de systèmes de séries DVA

DVA Composer est un logiciel de direction et simulation acoustique pour tous les modèles de lignes de source de la série DVA et les caissons de basse relatifs.
Ce logiciel permet de gérer un système stéréo composé de ligne source et de caissons de basse, simulant séparément la réponse acoustique de chacun des deux.
De plus, de nombreuses informations sont fournies à l'utilisateur, comme l'alignement en phase entre les systèmes suspendus et les relatifs caissons de basse à terre, ou la syggestion d'angles optimisés entre les modules de ligne de source et les préréglages d'égaliseur relatifs. Cela permet d'optimiser les performances du système, même pour des utilisateurs non experts.



On conseille de télécharger gratuitement le logiciel DVA_Composer directement à partir du site dB Technologies (www.dbtechnologies.com) dans la section dédiée « Software & Controller »