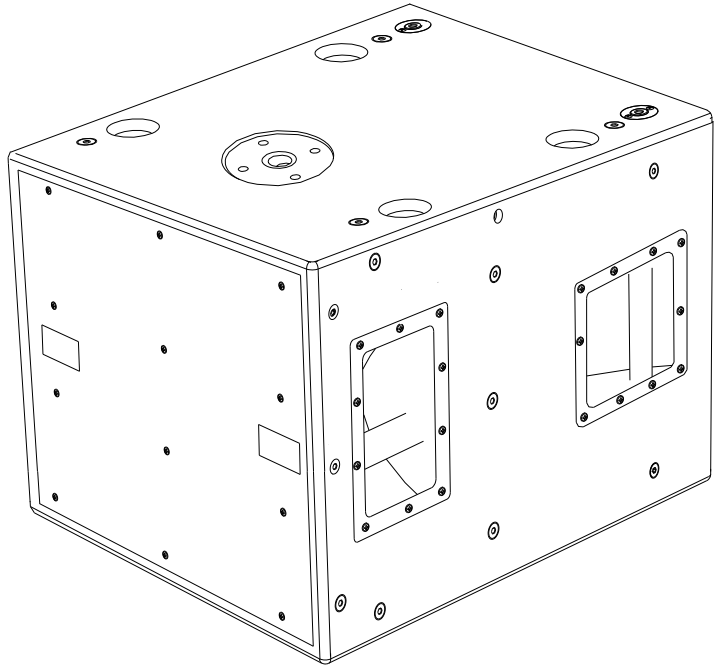
SUB 509dp

STEREO ACTIVE SUBWOOFER



digipro digital power

MANUALE D'USO
USER MANUAL
BEDIENUNGSANLEITUNG
CARACTERISTIQUES TECHNIQUES

CE Made in Italy

COD. 420120162A Rev 4.0

dB TECHNOLOGIES
THE SOUND OF EXPERIENCE

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E-mail: info@dbtechnologies-aeb.com

CARATTERISTICHE

Raffreddamento

Il raffreddamento dell'amplificatore avviene attraverso il pannello in alluminio posto sul retro del diffusore.

La protezione termica è garantita da un circuito interno che controlla la temperatura dell'amplificatore stesso e lo protegge dal surriscaldamento limitando in proporzione il volume generale (con temperatura >70°).

Se la temperatura raggiunge quella massima di utilizzo (>80°), il segnale audio viene posto in stato di "mute" e verrà segnalato tramite l'accensione dell'indicatore luminoso giallo "MUTE".

Il corretto volume e tutte le funzioni verranno riprese automaticamente al raggiungimento delle normali temperature di esercizio.

Protezioni

L'accesione dell'indicatore luminoso giallo "MUTE" indica che l'amplificatore ha rilevato un malfunzionamento sul diffusore, ponendolo in stato di mute.

Eseguire le seguenti verifiche:

- Controllare la corretta connessione alla rete d'alimentazione.
- Assicurarsi della corretta tensione d'alimentazione.
- Controllare che l'amplificatore non sia surriscaldato.
- Scollegare dalla rete di alimentazione il diffusore, attendere qualche minuto e riprovare

Se dopo tale prove l'indicatore non si spenge contattare un centro assistenza autorizzato.

CLASSIFICAZIONE EMI

In accordo alle normative EN 55103, l'apparato è progettato e idoneo all'utilizzo in ambiente Elettromagnetico E4.

DATI TECNICI

Sistema	Attivo
Tipologia amplificatore	Classe D (DIGIPRO®)
Potenza RMS	1000W
Potenza musicale	2000W
Risposta in frequenza	40-120Hz (-3dB) 38Hz - XOVER (-10dB)
Crossover	90Hz - 120Hz selezionabile , 24dB/oct
Pressione sonora (max SPL)	135dB
Componenti	1x15" woofer neodimio, 4" voice coil
Sensibilità ingresso	max -3dBu
Impedenza ingresso Bilanciato **Sbilanciato**	20Kohm 10Kohm
Alimentazione	Full-rangeconPFC, 100-240Vac, 50-60Hz
Forma diffusore	Rettangolare
Colore diffusore	Nero
Dimensioni (WxHxD)	515x440x720mm
Peso	37,5Kg
Peso (con staffe per appendibità)	41,5Kg
Supporto piantana	M20 (alluminio)
Maniglie	4 in metallo (2 per lato)

DESCRIPTION

The DVA S09dp is an active subwoofer of DVA (Digital Vertical Array) series equipped with DIGIPRO® 1000s amplifier.

This class D high-efficiency amplifier, deliver high output power in a compact size and low weight. Thanks to its high efficiency, the cooling of the amplifier module is obtained statically, thus avoiding the use of a fan.

The power supply circuits of the DIGIPRO® amplifier, assembled on DVA S09dp, has been designed to work in full-range mode; thanks to the SMPS (Switched-Mode Power Supplies) technology with PFC (Power Factor Correction) the operation with supply voltages between 100 Vac and 240Vac is guaranteed by ensuring the same sound performances even with floating and non-stabilized power supply systems.

The DVA S09dp speaker is designed to function in stereo and in mono modes. It is possible to set crossover frequency (90Hz or 120Hz) and turning of phase (0° or 180°).

The output signals can be linked or controller by X-OVER circuit.

DVA S09dp is made of birch wood, designed for medium size rooms. The subwoofer speaker is made using "BAND PASS" so that high sound pressures can be achieved in compact dimensions.
For easy use, installation and transport, are provided with:

- handles on sides (DVA S09dp White excluded),
- standard (M20) pole mount plate (DVA S09dp White excluded),
- top part of the box features recesses for making it easier to superimpose another subwoofer.
- rigging predisposition
- wheels predisposition (DVA S09dp White excluded)

CONNECTIONS

Connecting to the mains supply

Each active speaker features its own power cable. Connection is done by a Neutrik POWER CON® (blue) model which permits easy and fast connection to the speaker as well as being an excellent locking system.

The same connector serves as a switch to turn ON and OFF the active loudspeaker by turning the connector to the left (OFF) or right (ON).

The active speaker must be connected to a power supply able to deliver the maximum required power.

Main power supply linking

On the rear of the speaker, a Neutrik POWER CON® connector (grey) offers linking the mains power supply.

This socket links the power supply to another speaker, thereby reducing the direct connections to the mains. Maximum amplifier input power is shown on the amplifier panel. The maximum number of speakers connected together varies of max input power and of the maximum allowed current of the first power socket.

CONTROLS AND FUNCTIONS (picture ref. pag.21)

1) **" BALANCED INPUT 1" AND " BALANCED INPUT 2"INPUT CONNECTORS**
Balanced inputs at line level. Accept "XLR" sockets.

2) **"OUT 1 " AND "OUT 2 " OUTPUT CONNECTORS**
The "XLR" connectors be used to send the input audio signal to another amplified speaker.
The signal is choosing between "LINK/XOVER" (10) switch.

3) **"LIM" LIMITER INDICATOR LIGHT**
This indicator shows red to indicate that the internal limiter starts working.
This prevents amplifier distortion and protects the speakers against overloads.

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

5) **"MUTE" INDICATOR LIGHT**
This yellow indicator indicates amplifier status.
The LED is off in normal operating conditions.

6) **"ON" READY INDICATOR LIGHT**
This indicator shows green to indicate that the main power voltage is correct.
The LED shows green normal operating conditions

7) **"SUBWOOFER LEVEL" INPUT SENSITIVITY CONTROL**
This control adjusts the sensitivity of the signal amplifier input.
This control does not affect the "OUT 1 " and "OUT 2 " outputs levels

8) **"PHASE" SWITCH**
This two-position switch permits turning the audio signal's phase by 180°.
Rotation makes it easier to optimise the reproduction of the low frequencies even in the most difficult installation situations. After completing installation, play a piece of music and move the switch to achieve the best sound reproduction at low frequencies.

9) **"XOVER" SWITCH**
This switch permits selecting the crossover frequency between the subwoofer and the speakers connected to the "OUT 1 " and "OUT 2 " outputs.
Choice depends on the type of speaker used for reproduction of mid-high frequencies.
For speakers with 12" cones, it is best to use 120Hz, while with 15" speakers 90Hz.

10) **"LINK/XOVER" SWITCH**
This switch allows to select the signal type to send "OUT 1 " and "OUT 2 " outputs.
The "LINK" position allows to link the same input signal.
The "XOVER" position allows to send input signal according to crossover frequency select by XOVER (9) switch.

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

12) **"MAINS LINK" POWER SOCKETS**
For linking the mains power. The outputs are connected in parallel with input (11) and can be used to power other active speakers.
The connectors are POWER CON® (grey) sockets.

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

14) **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.

CHARACTERISTICS

Cooling
The amplifier is cooled by means of the aluminium panel placed on the back of the speaker.

The thermal protection is ensured by an internal circuit which controls the temperature of the amplifier and protects this against any risk of overheating thus limiting in proportion the general volume (temperature >70°C).

If the temperature reaches the maximum operating temperature (>80°C), the audio signal is set to the "MUTE" position and it will be indicated by the switching on of the yellow "MUTE" LED.

The requiriered volume and all functions will be restored automatically when the normal operating temperatures are reached.

Protections
When the yellow "MUTE" LED turns on, it means that a malfunction has been detected on the speaker, thus setting this to the mute position.

Perform the checks listed below:

- Check if the speaker is properly connected to the power supply.
- Make sure that the power supply is of correct voltage.
- Check that the amplifier is not overheated.
- Disconnect the speaker from the mains power supply, wait for a few minutes and connect it again.

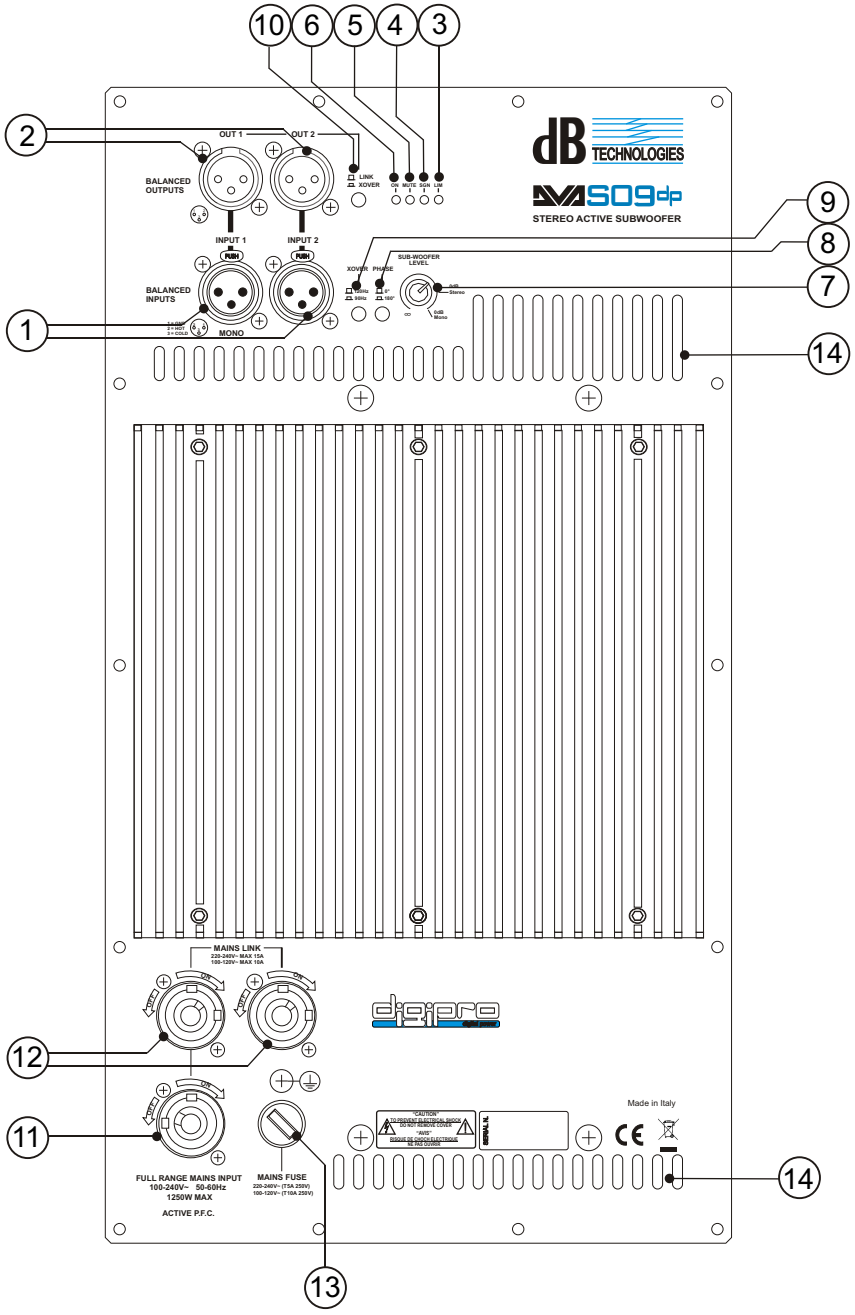
If after these tests the yellow "MUTE" LED is still on, please contact an authorised service centre.

EMI CLASSIFICATION

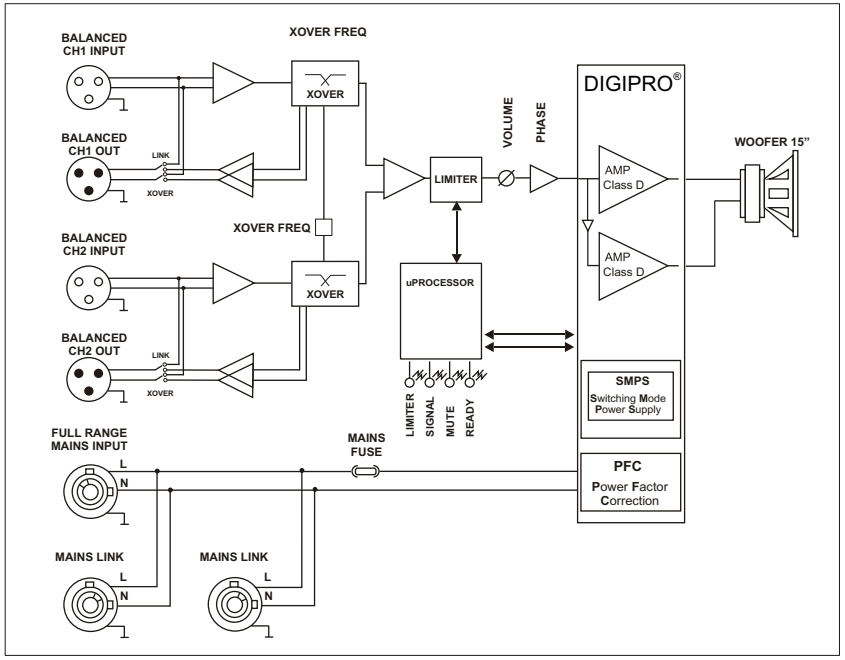
According to the standards EN 55103 this equipment is designed and suitable to operate in E4 Electromagnetic environment.

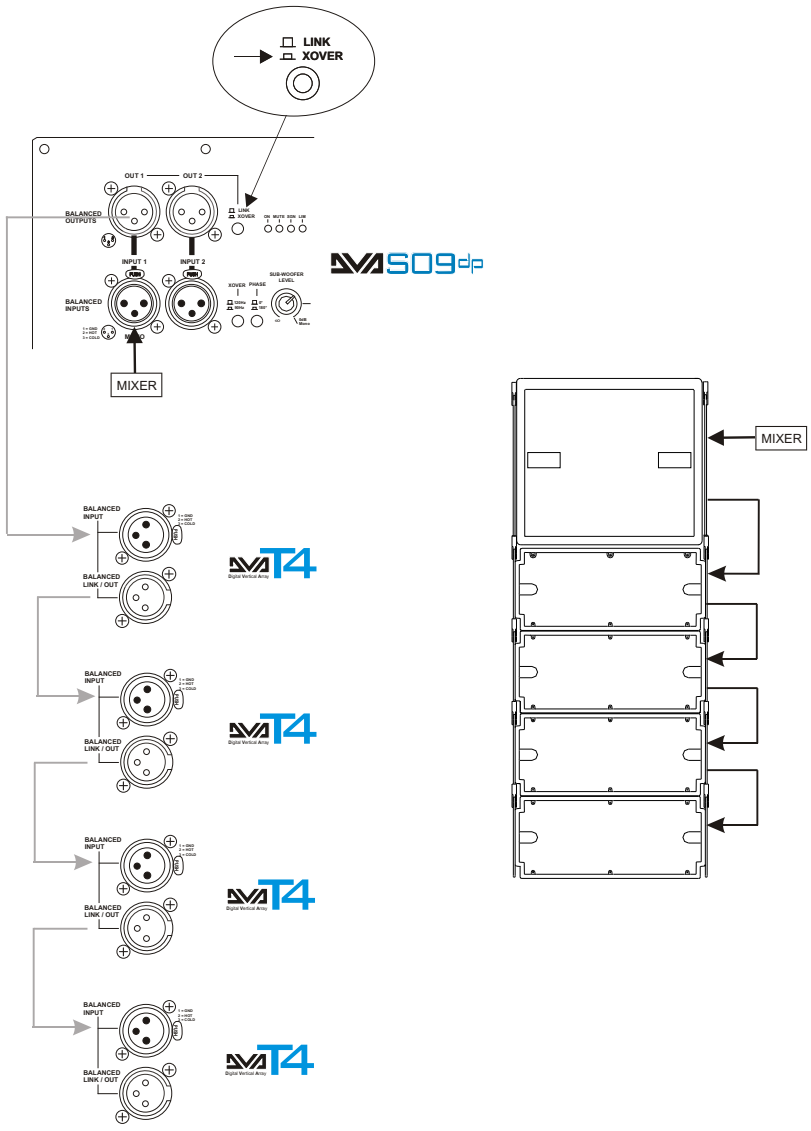
TECHNICAL SPECIFICATIONS

System	Active
Type of amplifier	Class D (DIGIPRO®)
RMS power	1000W
Music power	2000W
Frequency response	40-120Hz (-3dB) 38Hz - XOVER (-10dB)
Crossover	90Hz - 120Hz selectable 24dB/oct
Sound pressure (max SPL)	135dB
Woofer	1x15" neodymium - 4" voice coil
Input sensitivity	max -3dBu
Impedance input Balanced **Unbalanced**	20Kohm 10Kohm
Power supply	Full-range with PFC, 100-240Vac, 50-60Hz
Housing shape	Rectangular
Colour	Black
Dimension (WxHxD)	515x440x720mm
Weight	37,5Kg
Weight (with brackets)	41,5 Kg
Pole mount cup	M20 (aluminium)
Handle	4 metal (2 per side)

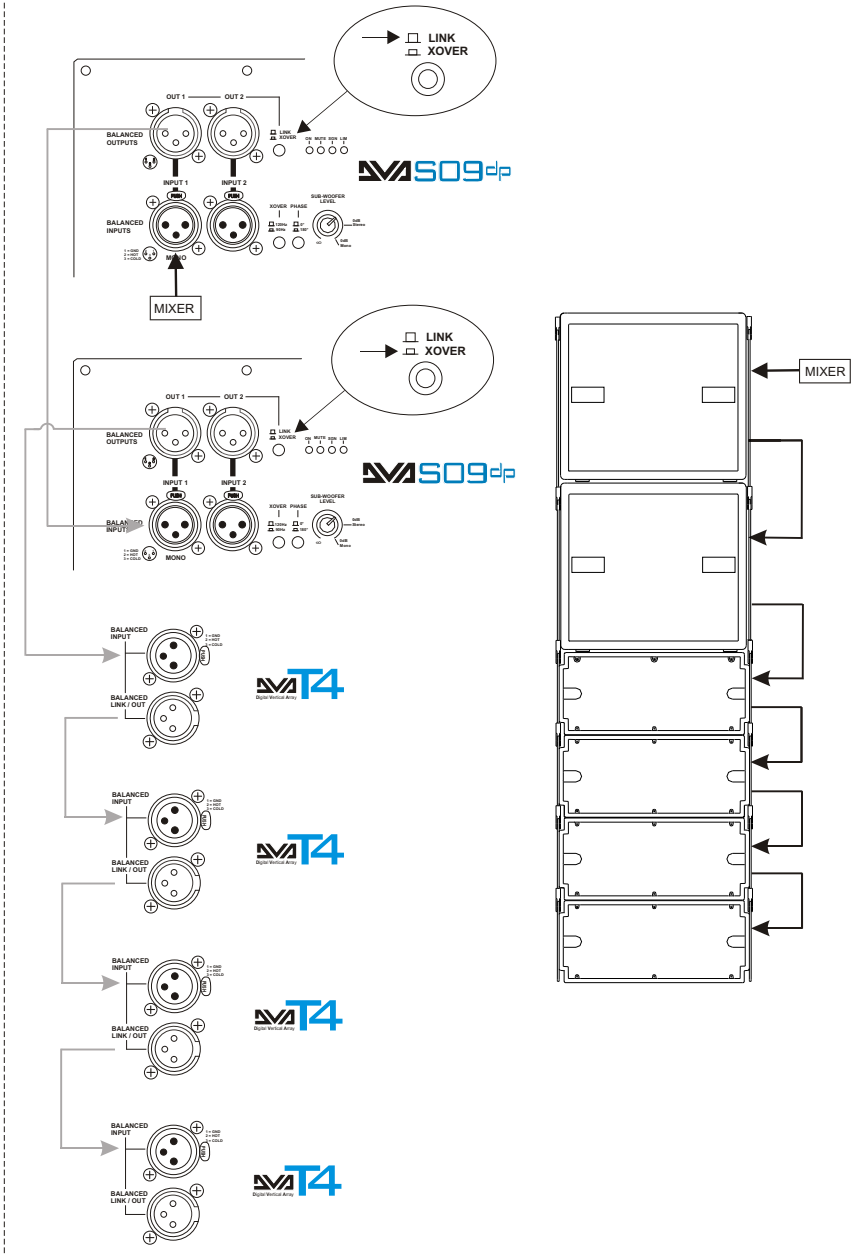


SCHEMA A BLOCCHI
BLOCK DIAGRAM
BLOCKSCHALTBILD
DIAGRAMA EM BLOQUES

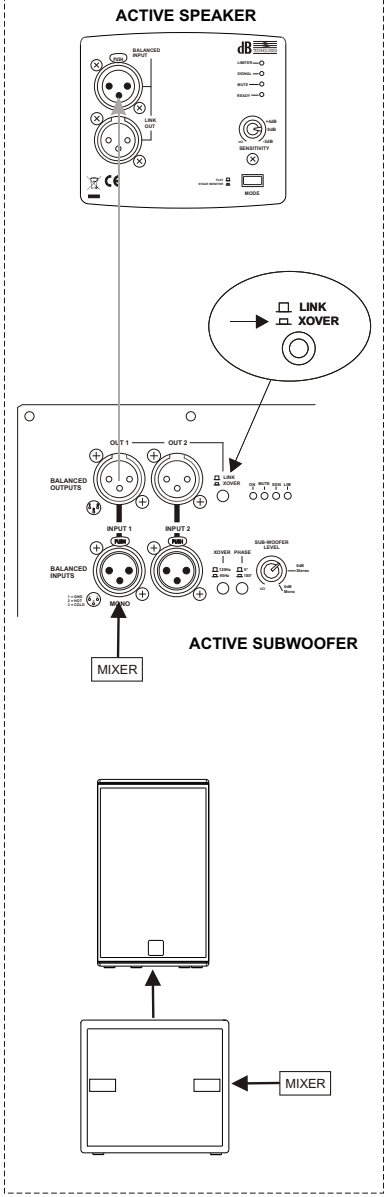




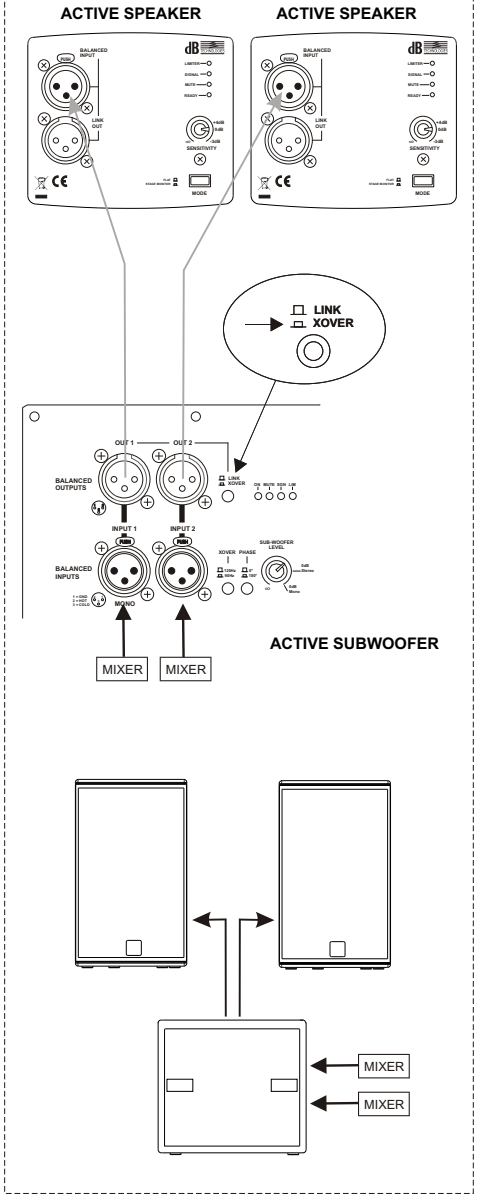
CONFIGURAZIONI e COLLEGAMENTI
CONFIGURATION and CABLE CONNECTIONS
KONFIGURATIONEN und VERKABELUNG
CONFIGURATIONS et CABLAGE



MONO

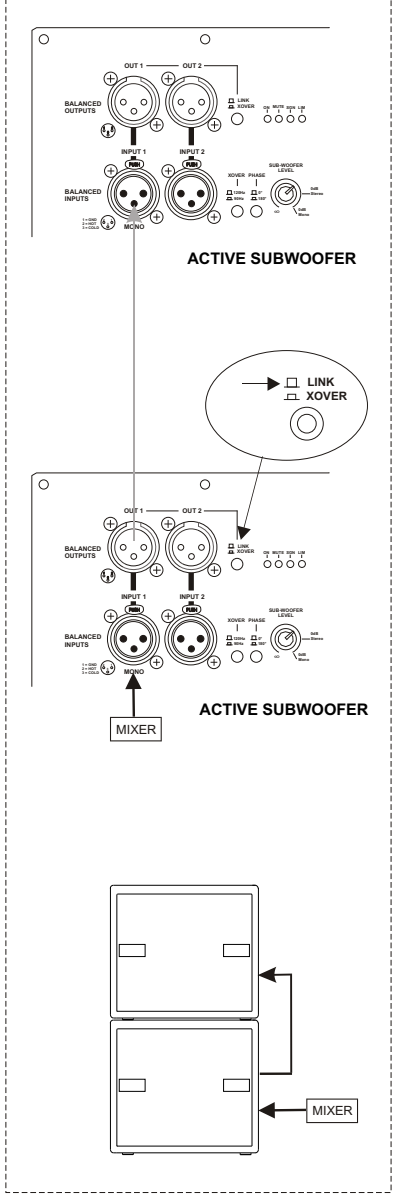


STEREO

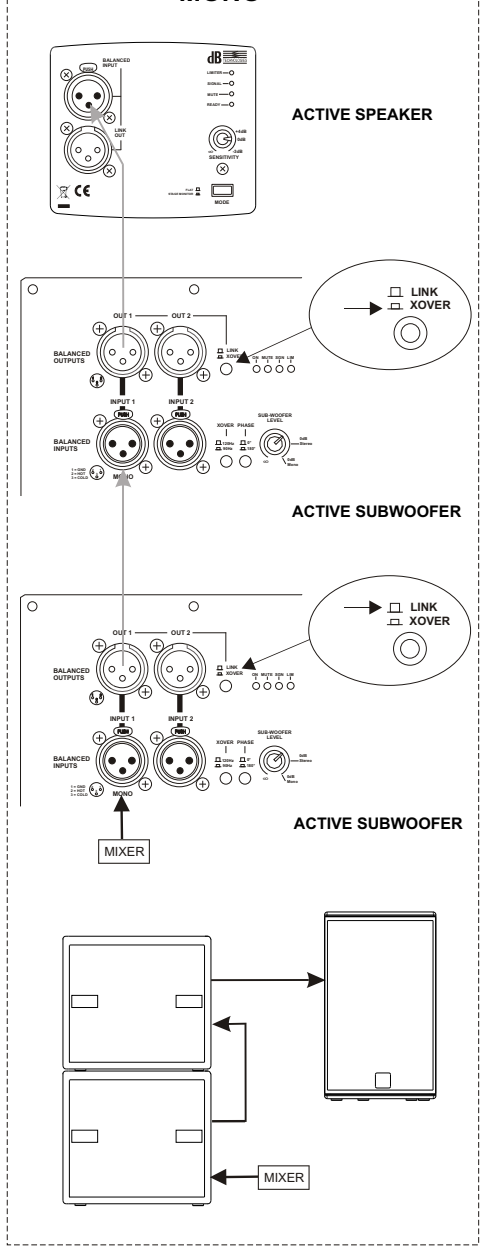


CONFIGURAZIONI e COLLEGAMENTI
CONFIGURATION and CABLE CONNECTIONS
KONFIGURATIONEN und VERKABELUNG
CONFIGURATIONS et CABLAGE

MONO



MONO



INSTALLAZIONE DEL DIFFUSORE
LOUDSPEAKER INSTALLATION
INSTALLATION DES LAUTSPRECHERS
INSTALLATION DU DIFFUSEUR

(I) ATTENZIONE

Installare il diffusore in modo stabile e sicuro, così da evitare qualsiasi condizione di pericolo per l'incolumità di persone e strutture.

Per evitare condizioni di pericolo non sovrapporre fra loro più diffusori senza adeguati sistemi di ancoraggio.
Nell'utilizzo all'aperto evitare luoghi esposti alle intemperie.

Il diffusore viene fornito dalla ditta costruttrice predisposto per l'utilizzo in appoggio.

(E) WARNING

Make sure that the loudspeaker is securely installed in a stable position to avoid any injuries or damages to persons or property.

For safety reasons do not place one loudspeaker on top of another without proper fastening systems.
If you use the loudspeakers outdoors avoid places that are exposed to bad weather.

(D) ACHTUNG

Den Lautsprecher auf eine stabile und sichere Art und Weise installieren, um jede Gefahr für Personen oder Sachschäden zu vermeiden.

Um gefährliche Situationen zu vermeiden, nie mehrere Lautsprecher ohne angemessene Abspannsysteme aneinander anschließen. Zum Fliegen verwenden sie nur das SRK09 original dBTechnologies Fly Kit!
Bei Verwendung im Freien sollte man darauf achten, das die Lautsprecher vor witterungseinflüssen wie Sturm, Regen, Hagel, Schnee, usw. geschützt sind.

Aus Sicherheitsgründen, sollten sie beim über einander stellen von Subwoofern darauf achten, dass diese nicht verrutschen oder umfallen können. Das Gehäuse ist mit einem M20 Hochständerflansch ausgestattet zur Aufnahme von Distanzstangen

(F) ATTENTION

Installer le diffuseur de façon stable et sûre afin d'éviter toute condition de danger pour l'intégrité des personnes et des structures.

Afin d'éviter les conditions de danger, ne pas superposer entre eux plusieurs diffuseurs sans systèmes d'ancrage appropriés.
Lors de l'utilisation en espace aérés, éviter les lieux exposés aux intempéries.

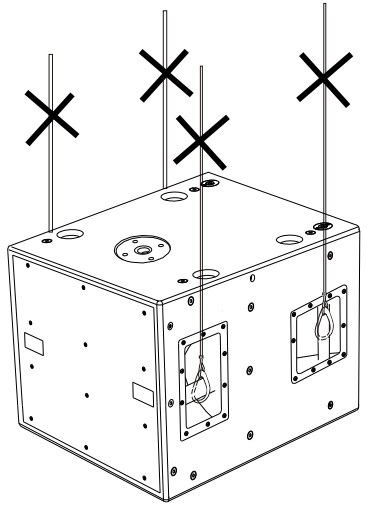
Le diffuseur est fourni par l'entreprise qui le fabrique et il est prédisposé pour l'utilisation en appui

(I) ATTENZIONE
Non utilizzare mai le maniglie per appendere il diffusore!

(E) WARNING
Never use the handles to hang the speaker!

(D) VORSICHT
Hängen Sie den Lautsprecher nie an den Griffen auf!

(F) ATTENTION
Ne jamais utiliser les poignées pour suspendre l'enceinte!



Escluso DVA S09dp Bianco
DVA S09dp White excluded
DVA S09dp White ausgeschlossen
DVAS09dp Blanc exclus

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.

INSTALLATION

The suspension of DVA T4 and DVA S09dp speakers is made through flybar stirrup DRK 10.
The maximum weight applying to DRK 10 flybar is 250Kg.

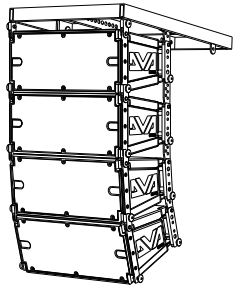
DVA T4 configuration

The DRK 10 flybar attests that the maximum number of DVA T4 is 16.

Refer to table 1 to determine the total weight borne by flybar according to the different DVA T4 configurations.

Table 1

Quantity	Weight [kg]	[lbs.]
1	15	33
2	30	66
3	45	99
4	60	132
5	75	165
6	90	198
7	105	231
8	120	264
9	135	297
10	150	330
11	165	363
12	180	396
13	195	429
14	210	462
15	225	495
16	240	528



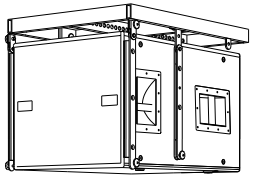
DVA S09dp configuration

The DRK 10 flybar attests that the maximum number of DVA S09dp is 4.

Refer to table 2 to determine the total weight borne by flybar according to the different DVA S09dp configurations.

Table 2

Quantity	Weight [kg]	[lbs.]
1	51	113
2	102	225
3	153	337
4	204	449



Mixed configuration with DVA T4 and DVA S09dp

The modular structure of DVA system permits mixed suspension configuration between DVA T4 and DVA S09dp. It is necessary to consider that one DVA S09dp hanging subwoofer corresponds, in weight terms, to four DVA T4 speakers.

For this reason it is necessary to calculate the total weight according to the different configurations.

	Quantity	Weight x qty	Configuration weight
DVA T4	8	120Kg	**222Kg**
DVA S09dp	2	102Kg	

	Quantity	Weight x qty	Configuration weight
DVA T4	12	180Kg	**231Kg**
DVA S09dp	1	51Kg	

Structural modification of DRK 10 flybar

No structural modifications may be made without the manufacturer's consent.

Warning
If the security norms and total weight calculations are not observed, dB Technologies is not responsible for any possible damage to people and things.

Original parts dB Technologies

Use only dB Technologies original parts.

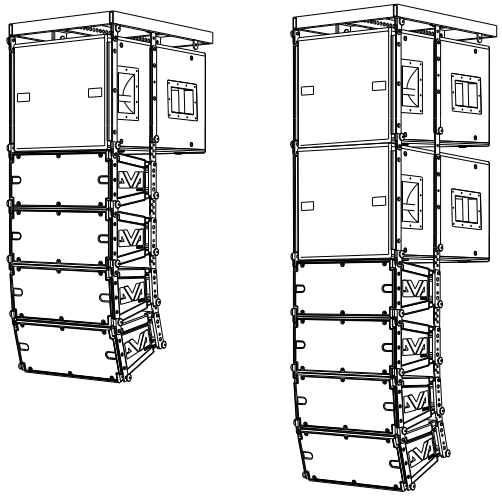
Warning
For this use no other parts are homologated, dB Technologies to refuse all responsability for any possible damage to people and things.

Always install parts in accordance with these installation instruction!
Compile and store all DVA system documents in a safe place!

Note

During installation ensure that carrying structure of the system has added in the total weight also the DRK 10 flybar weight, chain hoists, motors, cables and further weights.

Warning
The safety regulations might be different in other countries. Please check with your national safety authority the valid regulations!

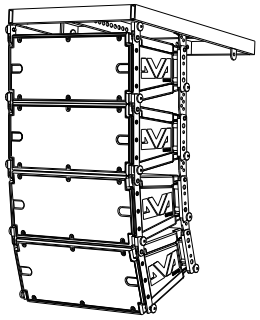


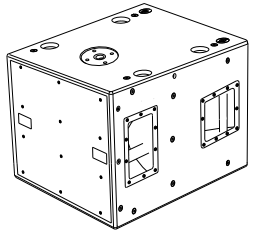
DVA Composer Acoustical Simulation and aiming for DVA Systems

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.

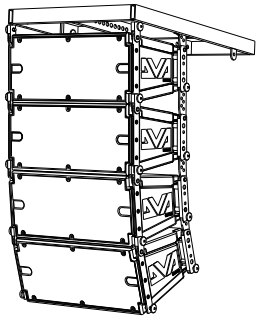
It is recommended to download DVA_Composer free software directly from dB Technologies (www.dbtechnologies.com) in the special section «Software & Controller»

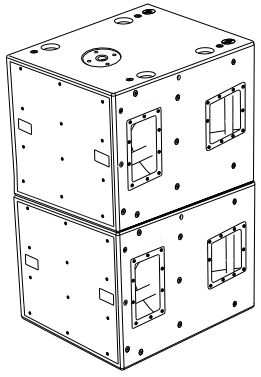
INSTALLAZIONE
INSTALLATION
INSTALLATIONEN
INSTALLATIONS





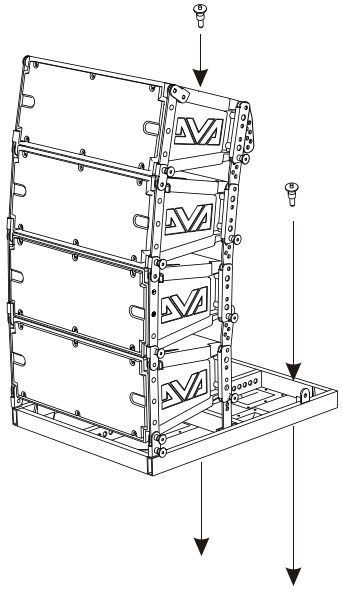
In appoggio
Groundstack

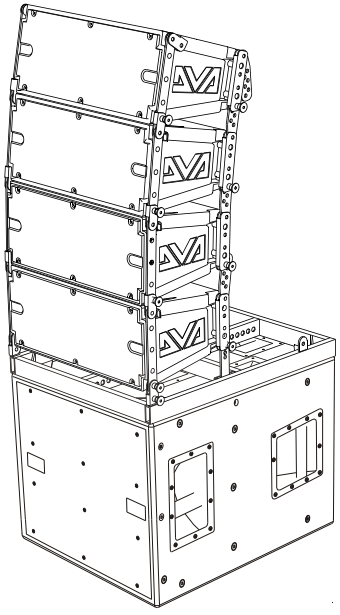


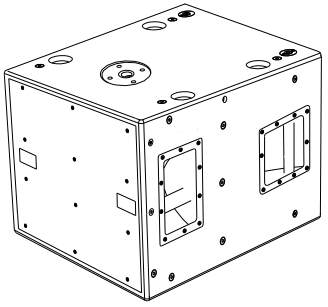


In appoggio - impilato
Groundstack - stacked

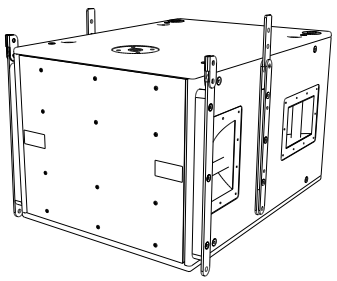
Escluso DVA S09dp Bianco
DVA S09dp White excluded
DVA S09dp White ausgeschlossen
DVAS09dp Blanc exclus

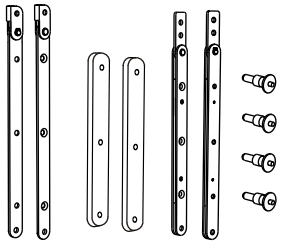




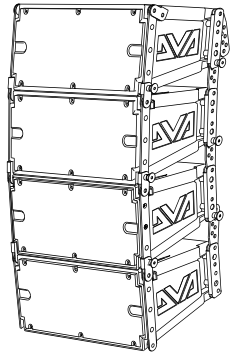


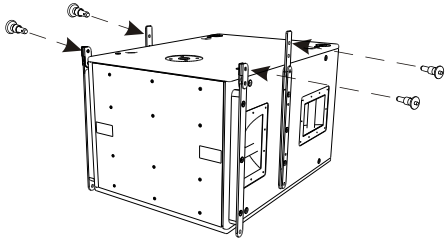
In appoggio con flybar (opzione DRK 10)
Groundstack with flybar (DRK 10 option)

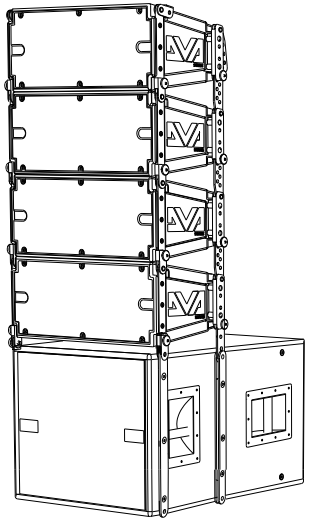




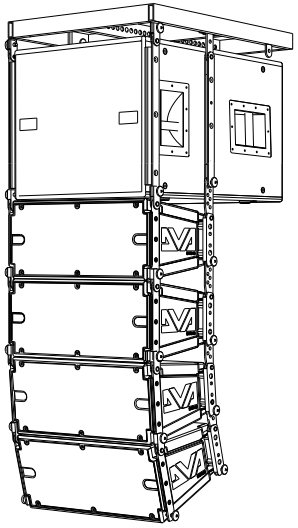
Kit staffe- opzione SRK-09
Kit stirrups - SRK-09 option

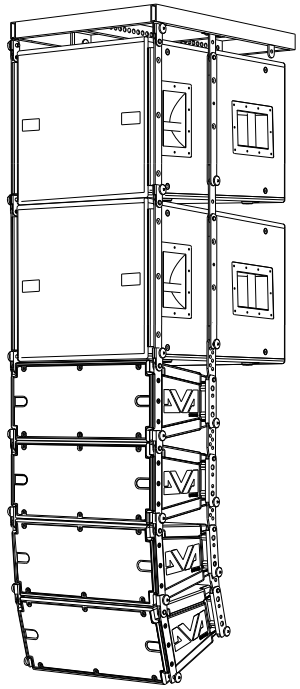


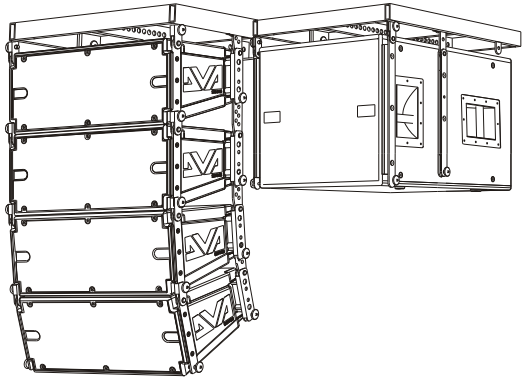




In appoggio con kit staffe
Groundstack with kit stirrups

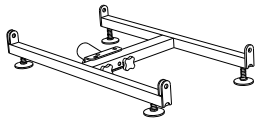




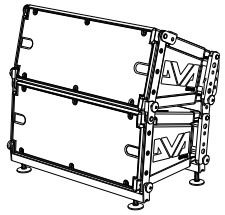


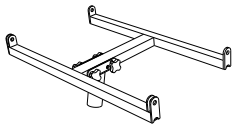
Appeso con kit staffe (opzione SRK-09) e flybar (opzione DRK-10)
Hang with stirrups kit (SRK-09 option) and flybar (DRK-10 option)

Opzione DSA 4
DSA 4 Option

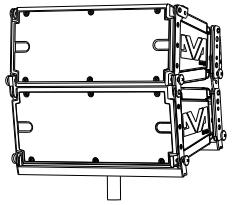


In appoggio
Floor stack

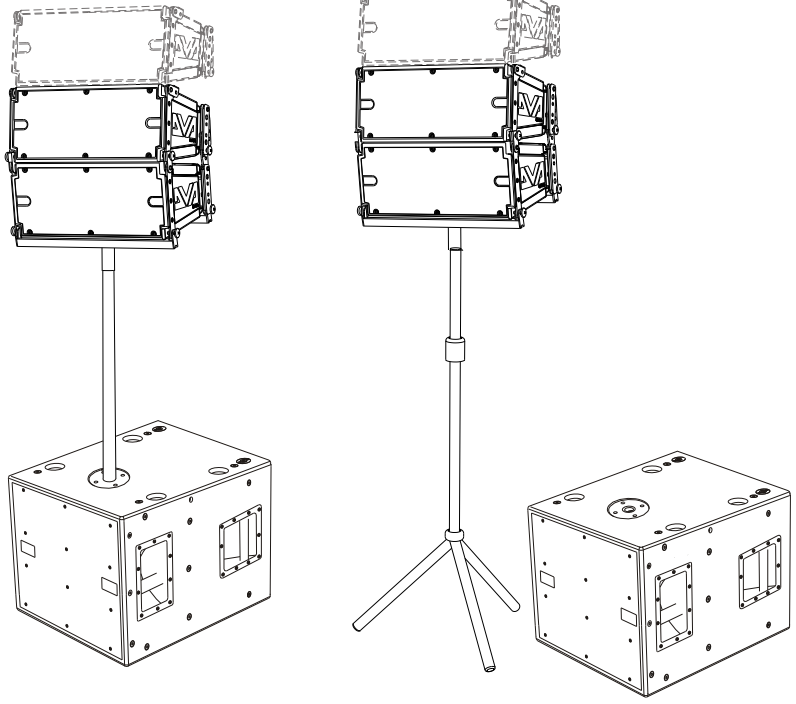




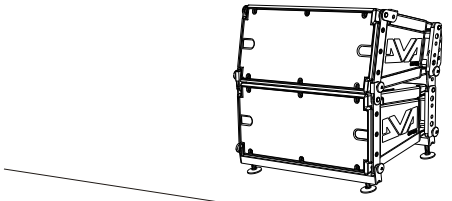
Per supporto asta
Stack adaptor

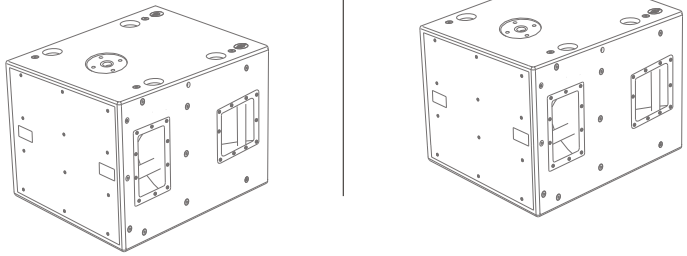


Escluso DVA S09dp Bianco
DVA S09dp White excluded
DVA S09dp White ausgeschlossen
DVAS09dp Blanc exclus

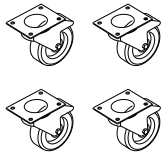


In appoggio son supporto su asta
per Groundstack with stand adaptor

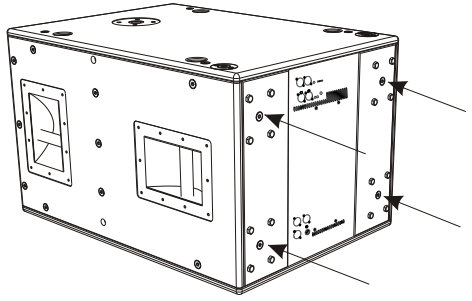




In appoggio a pavimento con supporto asta provvisto di piedi
Groundstack to floor with stand adaptor with feet



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



Escluso DVA S09dp Bianco
DVA S09dp White excluded
DVA S09dp White ausgeschlossen
DVAS09dp Blanc exclus

