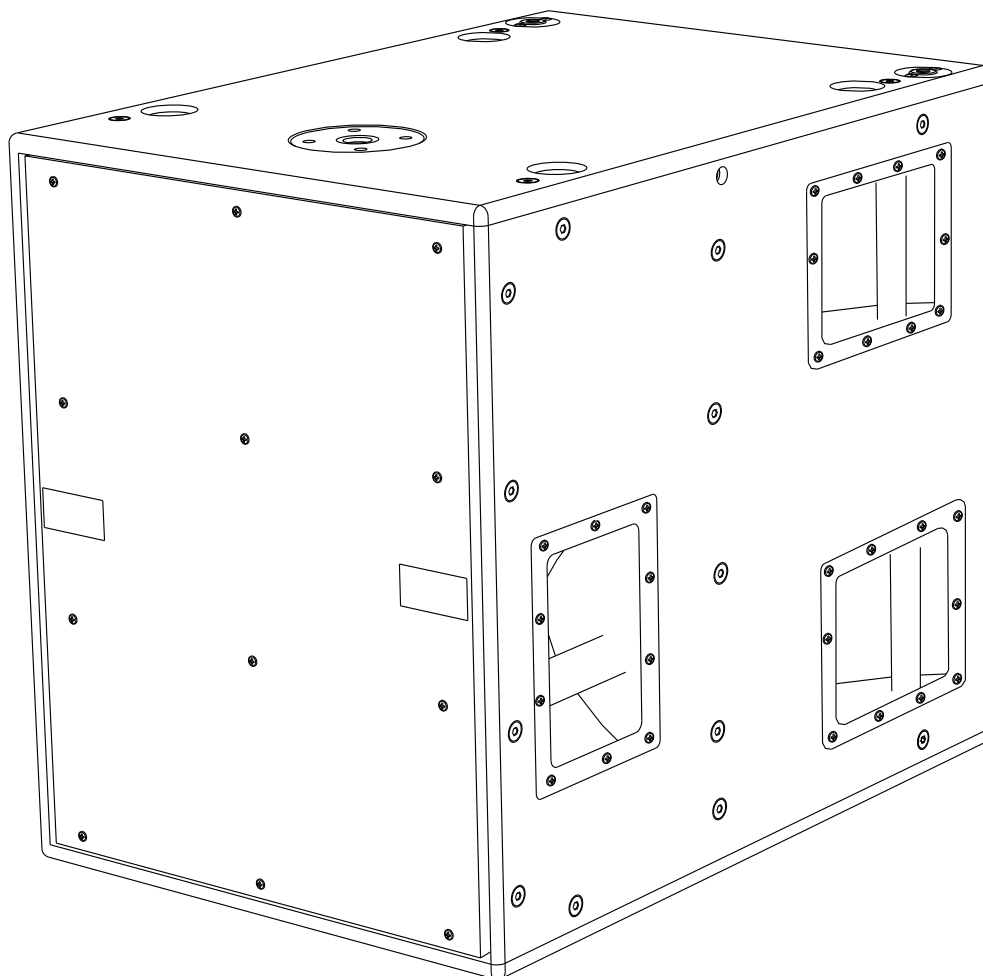


# MAS10dp

**ACTIVE SUBWOOFER**



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

**digipro**<sup>®</sup>  
digital power



Made in Italy

COD. 420120164 Rev. 5



## 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) **"LINK" RELAUNCH POWER SOCKET**  
For relaunching the mains power. The output is connected in parallel with input (2) and can be used to power another amplified speaker.  
The connector uses a POWER CON® (grey)
- 4) **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.
- 5) **" BALANCED MAIN INPUT" INPUT CONNECTOR**  
Balanced input at line level (0 dBu).  
It is able to accept "XLR" sockets.
- 6) **"LINK" OUTPUT CONNECTOR**  
The "XLR" connector connected in parallel with input (5) can be used to send the input audio signal to another amplified speaker.
- 7) **"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 (8).
- 8) **"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.
- 9) **"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.
- 10) **"ON" INDICATOR LIGHT**  
The "ON" indicator light comes on green to indicate the amplifier is switched on and it is working properly.
- 11) **"SGN" INDICATOR LIGHT**  
This indicator comes on green to indicate the presence of the audio signal (at a level of -20dB).
- 12) **"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.
- 13) **"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
- 14) **DIGITAL DELAY "SDD - SUBWOOFER DIGITAL DELAY" OPTION**  
The DVA S10dp 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 fronside.

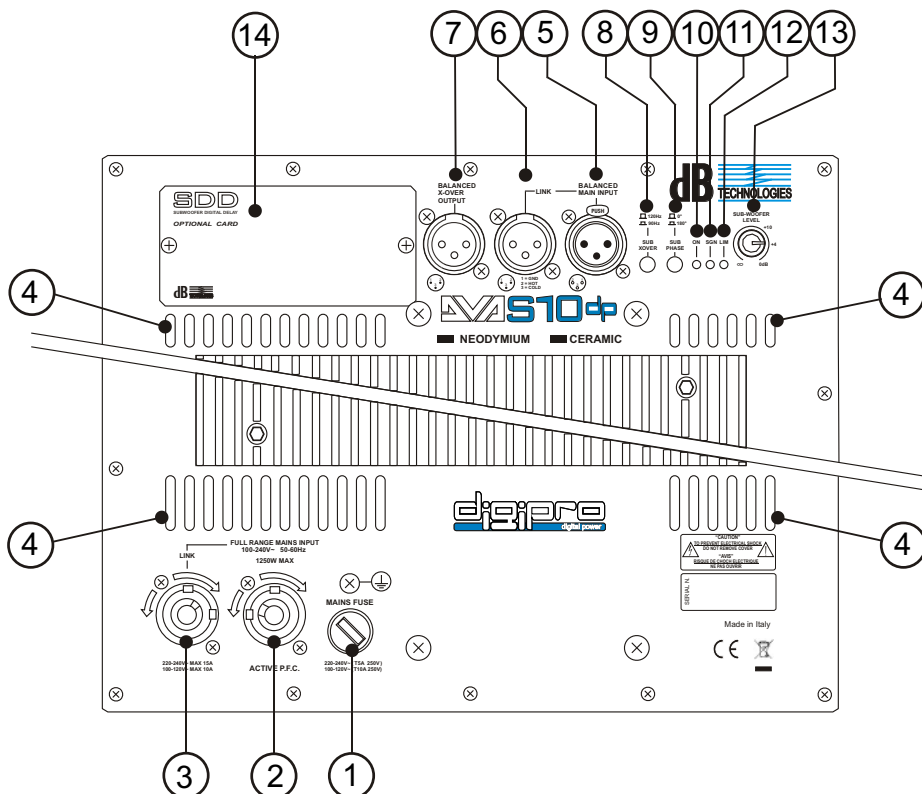
This configuration needs at least 3 subwoofers (two with front radiation and one with rear radiation equipped with SDD module). See appendix for more details.

### EMI CLASSIFICATION

According to the standards EN 55103 this equipment is designed and suitable to operate in E3 (or lower E2, E1) Electromagnetic environments.

### TECHNICAL SPECIFICATION

System	Active
Type of amplifier	Digital - Class D (DIGIPRO®)
RMS power	1000 W
Musical power	2000 W
Frequency response +/-3dB	40-150Hz
Crossover	90 - 120Hz (24dB/oct) selecting
Sound pressure (SPL)	136dB peak
Woofers	1 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]	515x640x770mm
Weight	Neodymium 42Kg - Ceramic 48Kg
Weight (with SRK10 Fly kit)	Neodymium 47,2Kg - Ceramic 53,2kg



## INSTALLATION

DVA system has obtained the TÜV certification for suspension of DVA T4 and DVA S10dp speakers through flybar stirrup DRK 10.

The report certifies that the maximum weight applying to DRK 10 flybar is 250Kg.

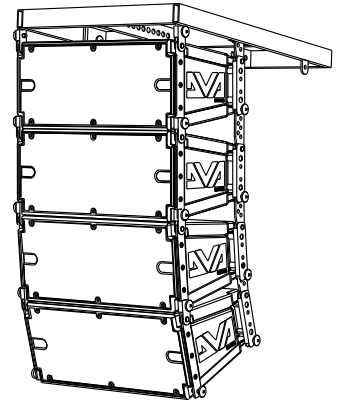
### DVA T4 configuration

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 DVAT4 configurations.

Table 1

Quantity DVAT4	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 S10dp configuration

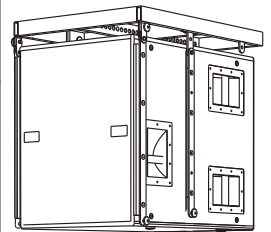
The DRK 10 flybar attests that the maximum number of DVA S10dp with Neodymium woofer is 4 and DVAS10dp with Ceramic woofer is 5.

Refer to table 2 to determine the total weight borne by flybar according to the different DVAS10dp configurations.

Quantity DVA S10dp (Neodymium woofer)	Weight	
	[kg]	[lbs]
1	48	106
2	96	212
3	144	317
4	192	423
5	240	528

Quantità DVA S10dp (Ceramic woofer)	Weight	
	[kg]	[lbs]
1	54	119
2	108	238
3	162	357
4	216	476

Table 2



### Mixed configuration with DV A T4 and DV A S10dp (Neodimium woofer)

The modular structure of DV A system permit s mixed suspension configuration between DVA T4 and DVA S10dp. It is necessary to consider that one DVA S10dp hanging subwoofer corresponds, in weight terms, to about four DVA T4 speakers.

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

Examples:

	Quantity	Weight x qty	Configuration weight
DVA T4	8	120Kg	<b>216Kg</b>
DVAS10dp (Neodimium woofer)	2	96Kg	

	Quantity	Weight x qty	Configuration weight
DVA T4	12	180Kg	<b>228Kg</b>
DVAS10dp (Neodymium woofer)	1	48Kg	

### Structural modification of DRK 10 flybar

No structural modifications may be made without the manufacturer's consent.  
Use only dB Technologies original parts

### Original parts dB Technologies

Use only dB Technologies original parts.  
The TÜV authorizing body has not certificated any other parts for use!  
Always install parts in accordance with these installation instruction!  
Compile and store all DVA system documents in a safe place!



#### 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.

### 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.

### Initiation and Operation

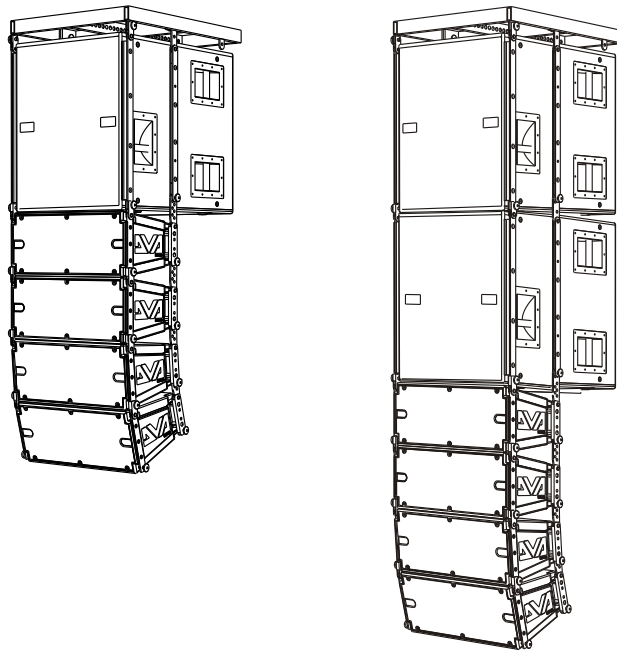
The safety regulation "§ 39, VBG 9a" of the German employers' liability insurance association's accident prevention regulations requires that load-carrying equipment be inspected by a qualified expert and possible defects be eliminated prior to initial commissioning by the recipient.

The safety regulation "§ 41, VBG 9a" requires that load-carrying equipment be subjected to a non-routine inspection following damage, repair work and other incidents that can affect load-carrying capacity.



#### 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.

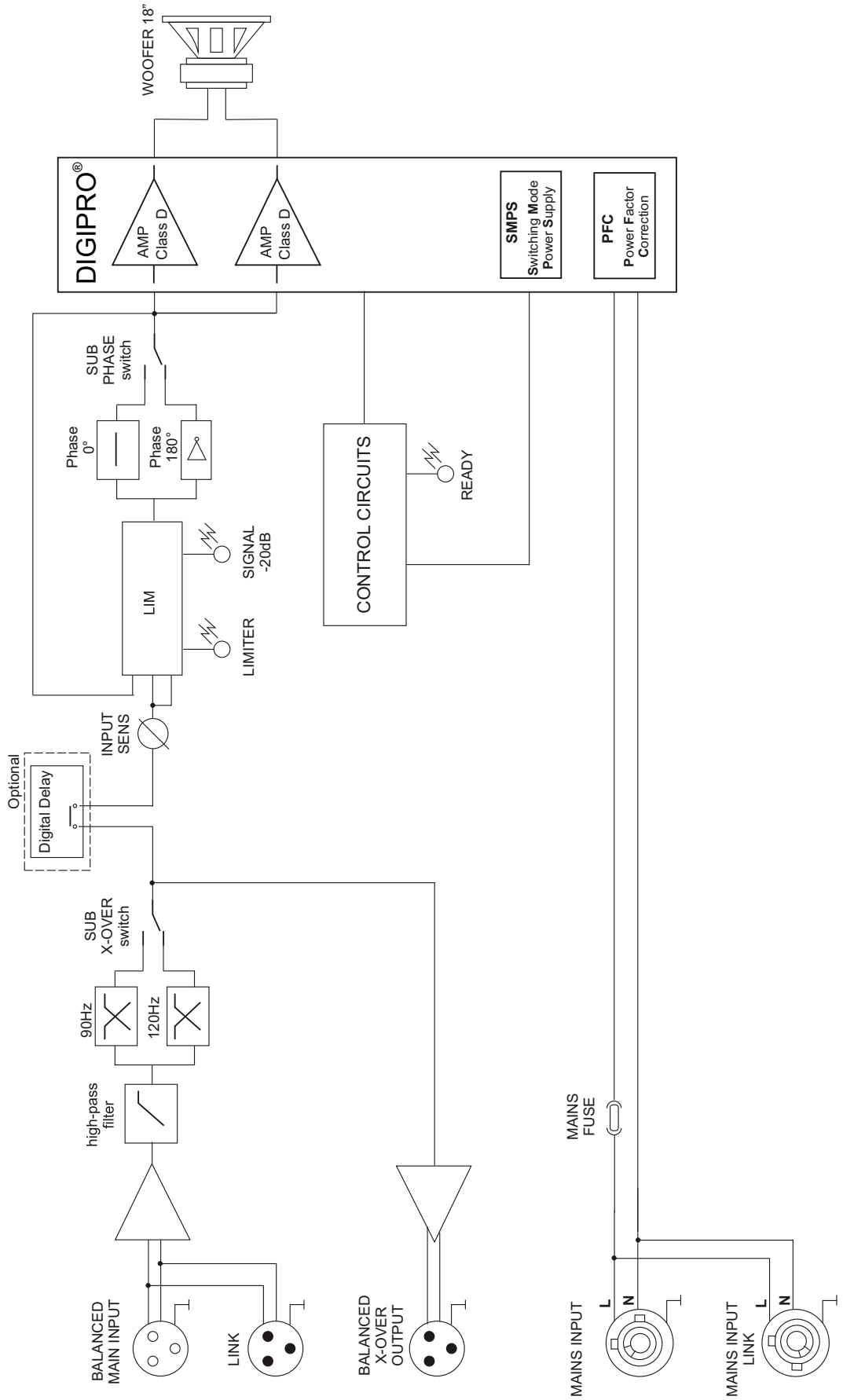
The software allows you to set up a stereo system composed by tops and subs, and simulates separately the acoustical response of both.

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.

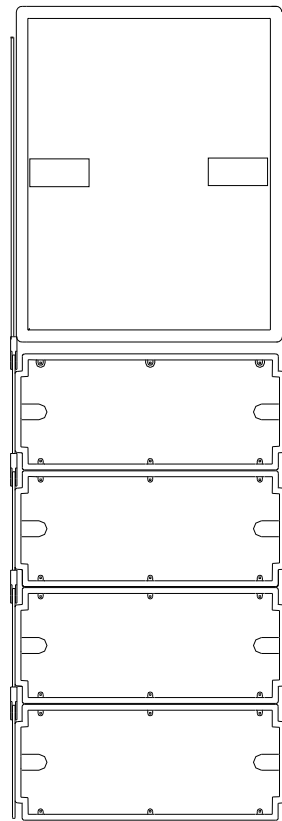
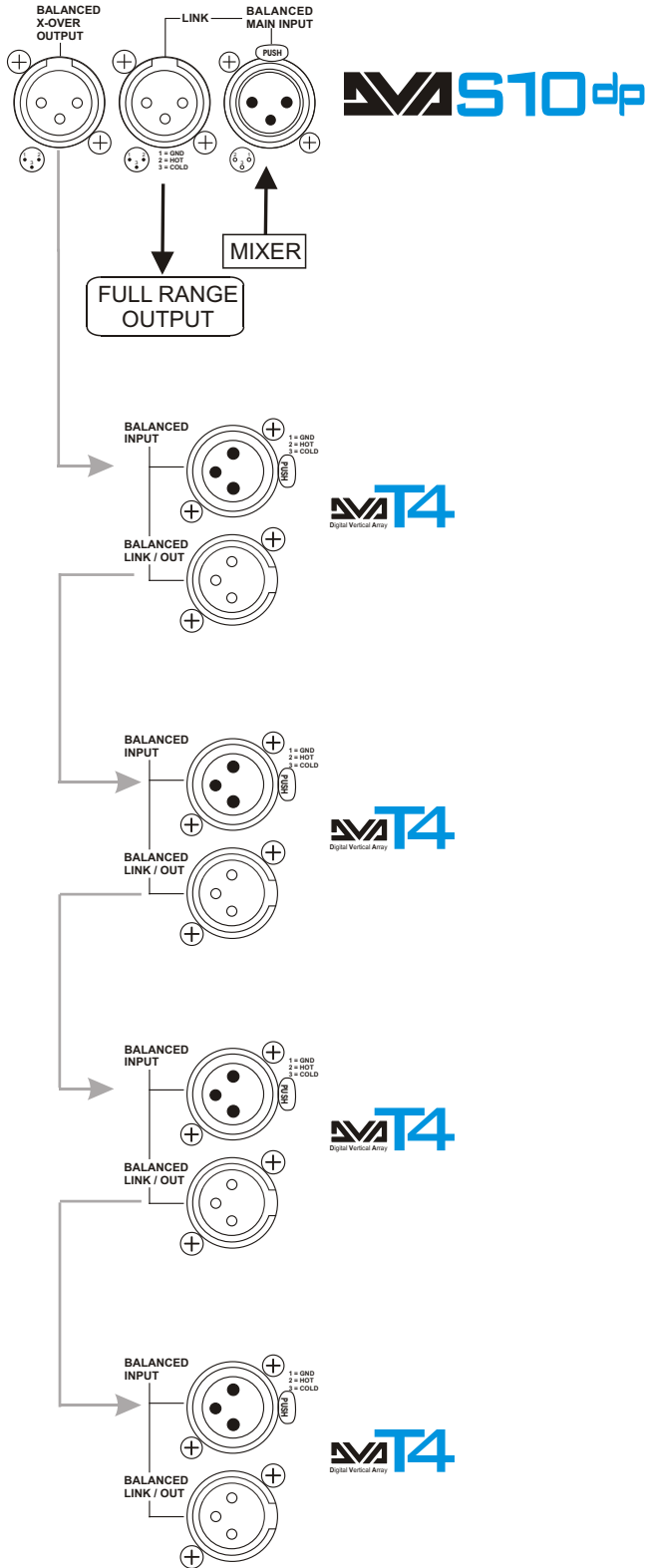


It is recommended to download DVA\_Composer free software directly from dB Technologies ([www.dbtechnologies.com](http://www.dbtechnologies.com)) in the special section « Software & Controller »

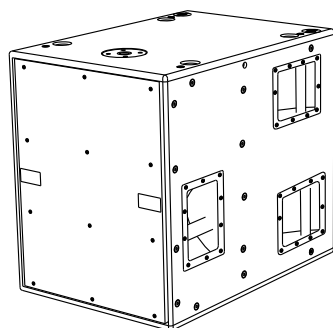
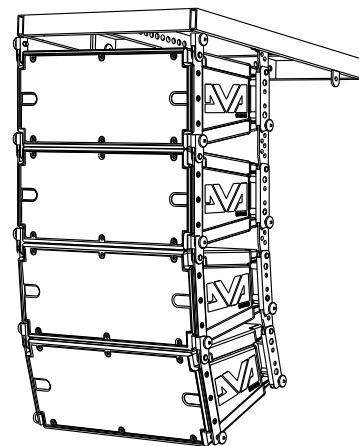
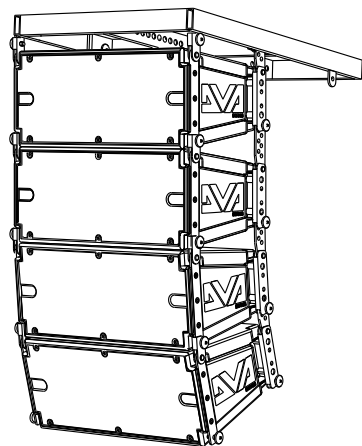
**SCHEMA A BLOCCHI  
BLOCK DIAGRAM  
BLOCKSCHALTBIKD  
DIAGRAMA EM BLOQUES**



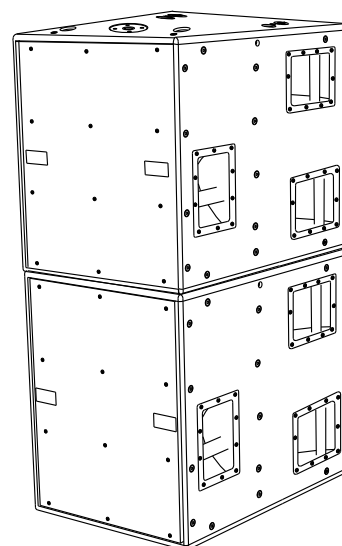
# COLLEGAMENTI CABLE CONNECTIONS VERKABELUNG CABLAGE



INSTALLAZIONE  
INSTALLATION  
INSTALLATIONEN  
INSTALLATIONS

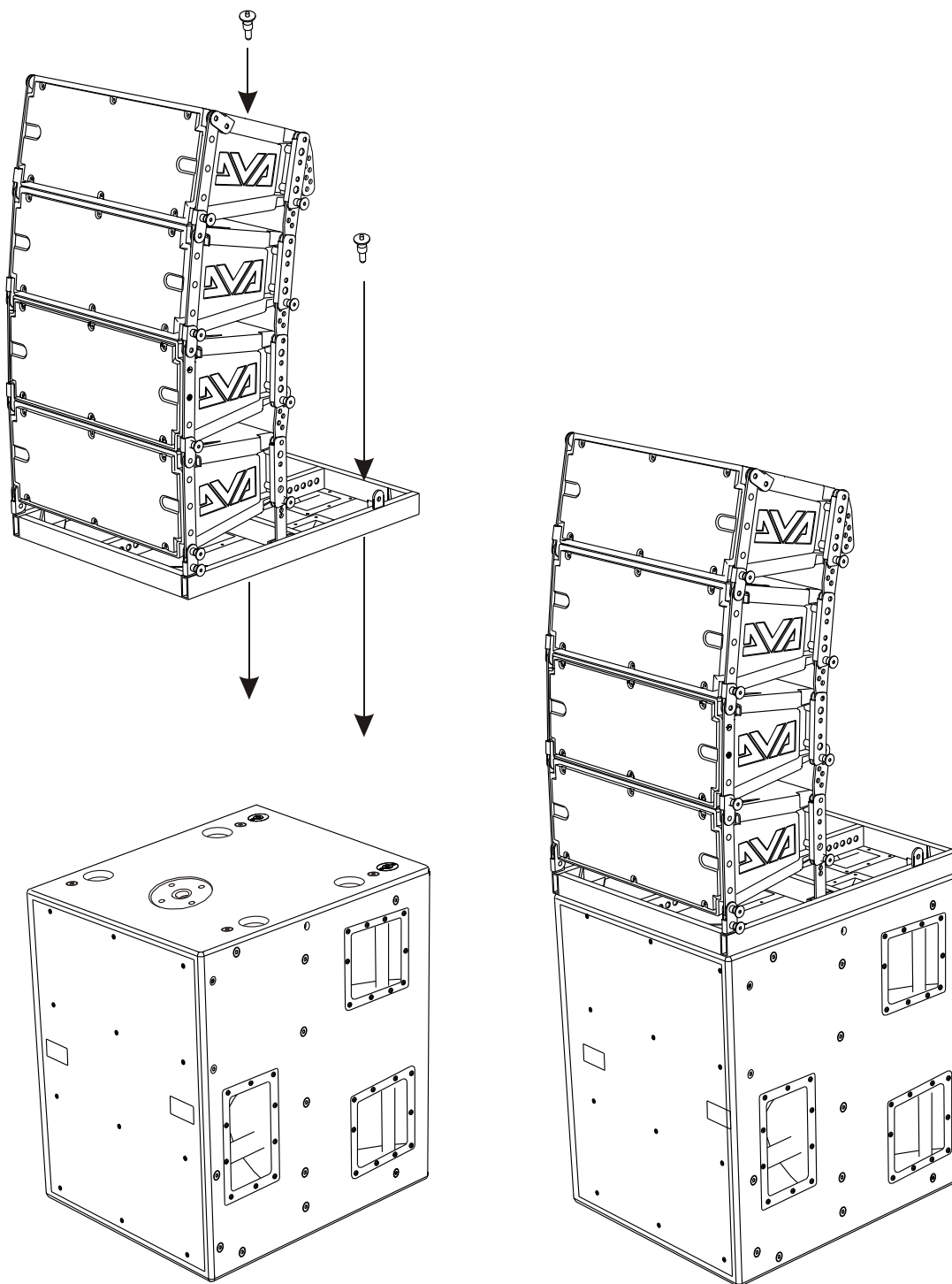


In appoggio  
Groundstack

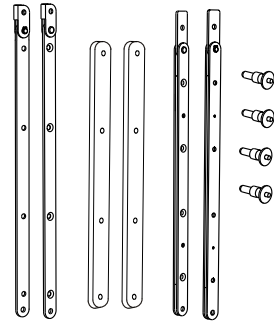
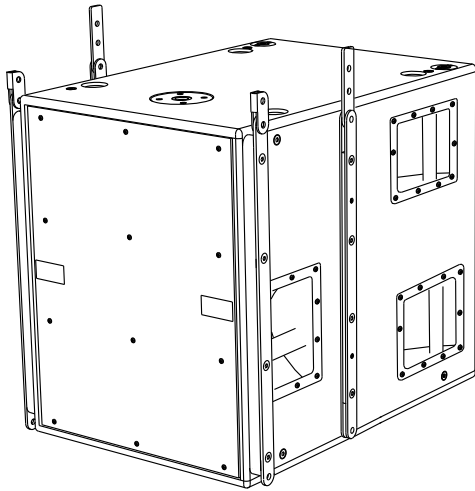


In appoggio - impilato  
Groundstack - stacked

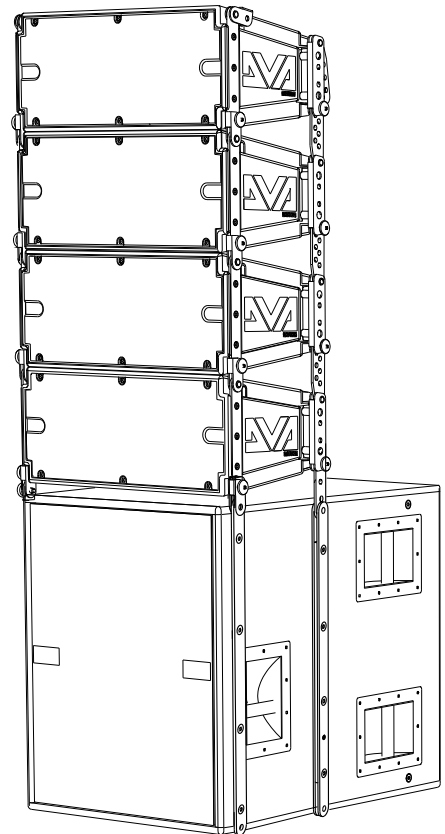
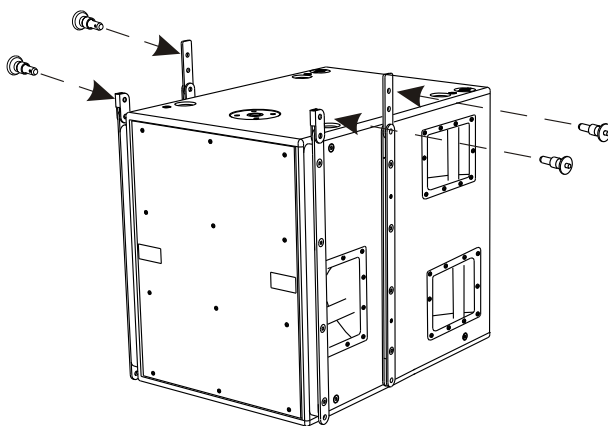
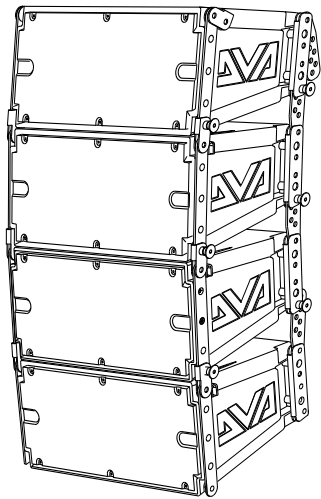




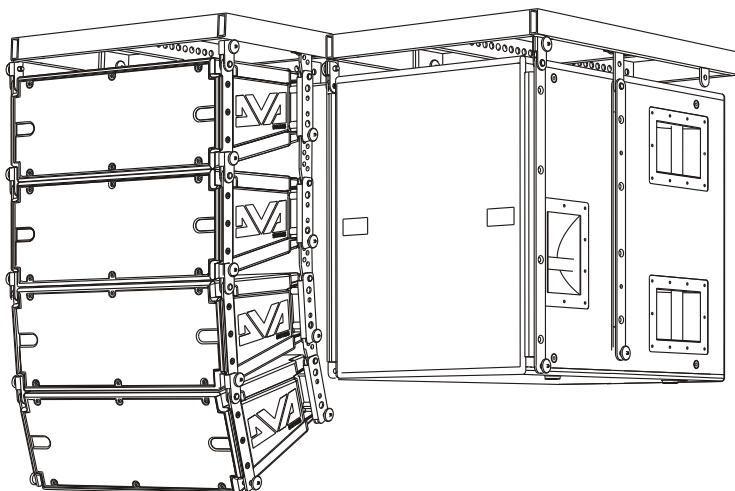
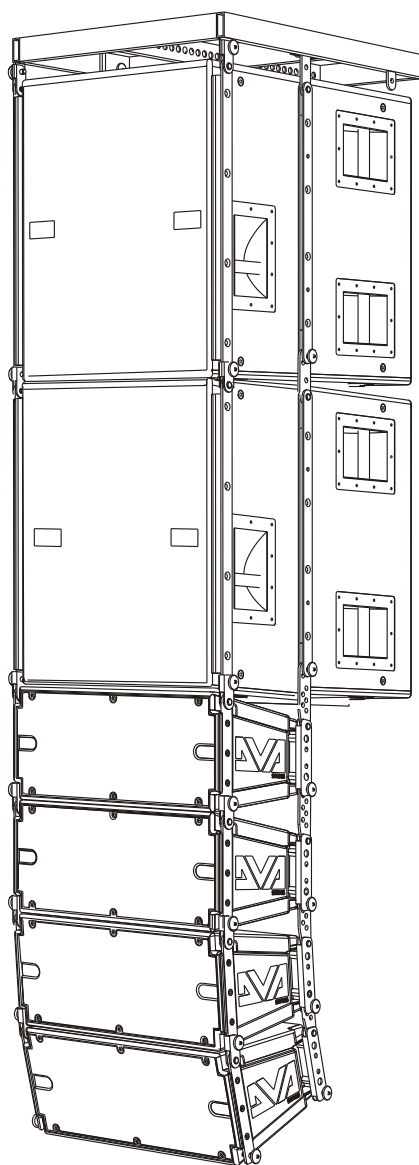
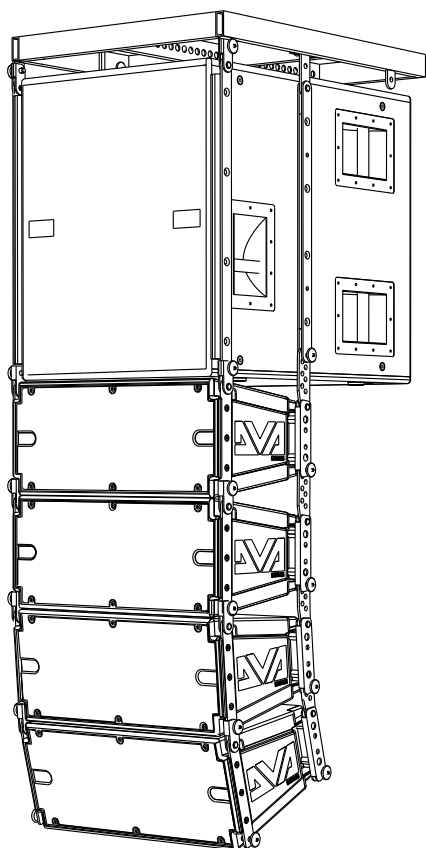
In appoggio con flybar (opzione DRK 10)  
Groundstack with flybar (DRK 10 option)



Kit staffe- opzione SRK 10  
Kit stirrups - SRK-10 option

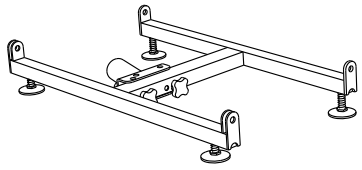


In appoggio con kit staffe  
Groundstack with kit stirrups

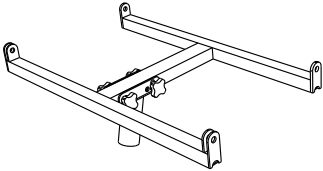
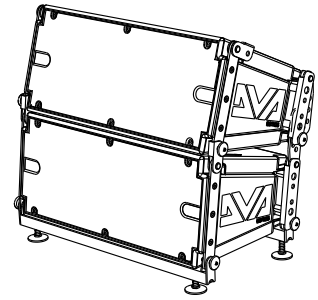


Appeso con kit staffe (opzione SRK-10) e flybar (opzione DRK-10)  
Hang with stirrups kit (SRK-10 option) and flybar (DRK-10 option)

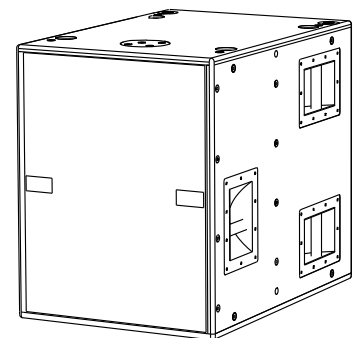
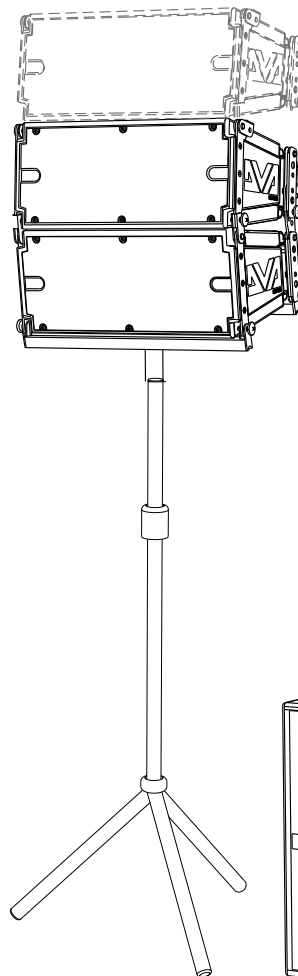
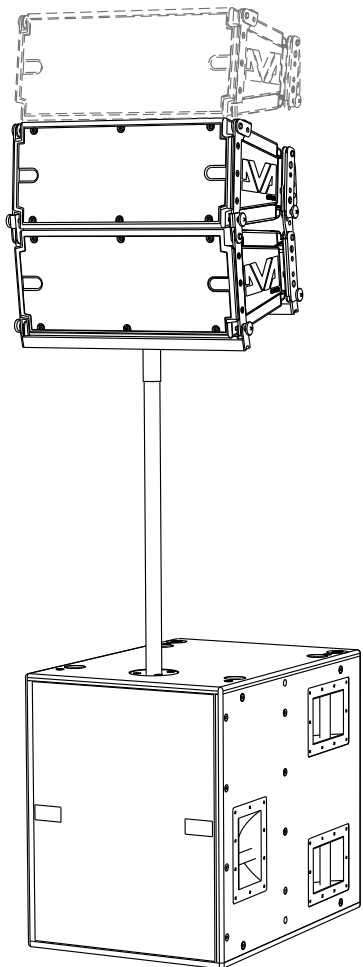
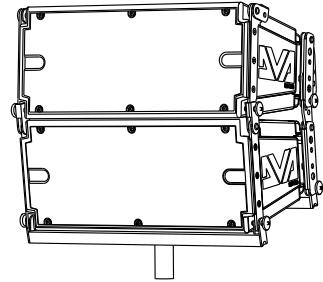
**Opzione DSA 4  
DSA 4 Option**



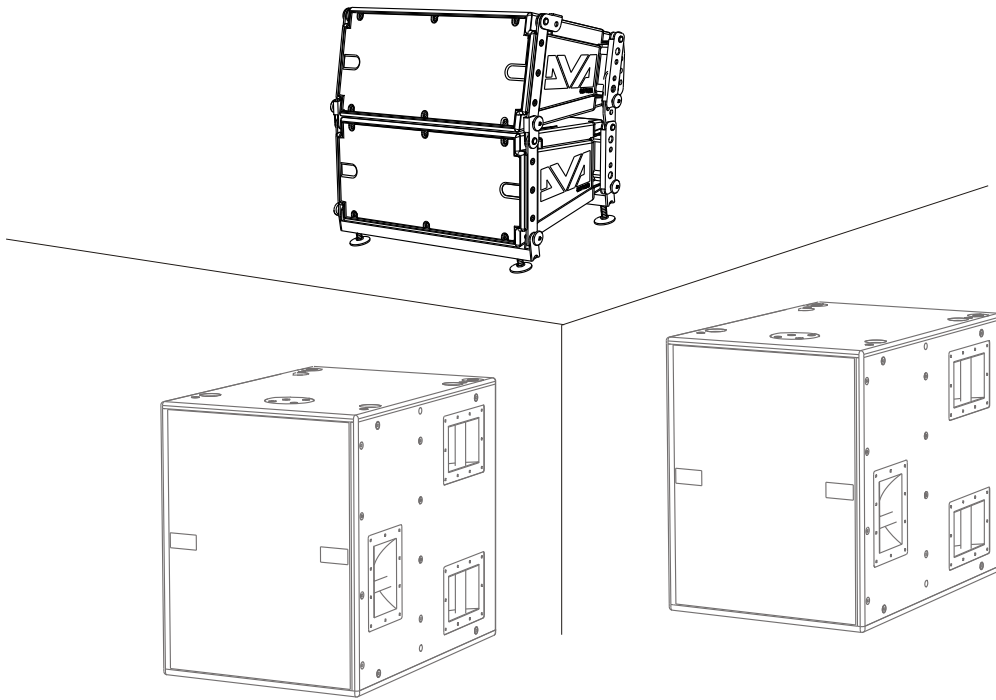
In appoggio  
Floor stack



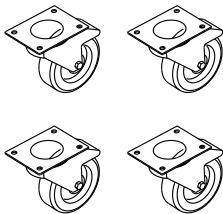
Per supporto asta  
Stand adaptor



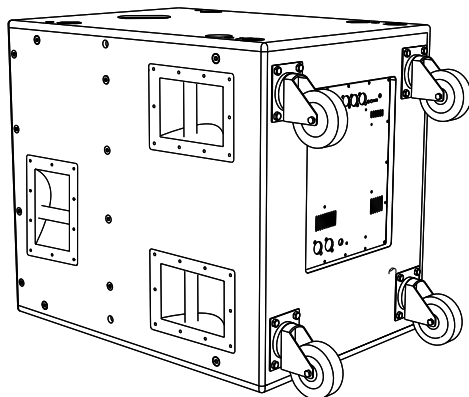
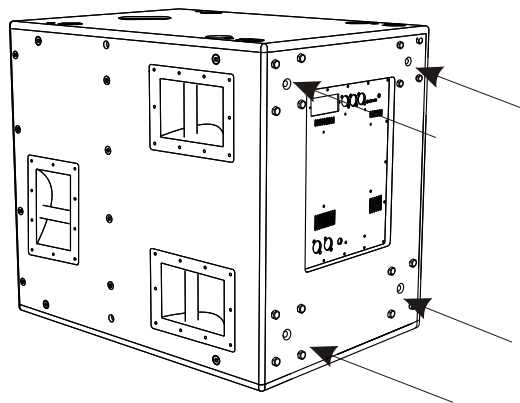
In appoggio son supporto su asta  
per Groundstack with stand adaptor

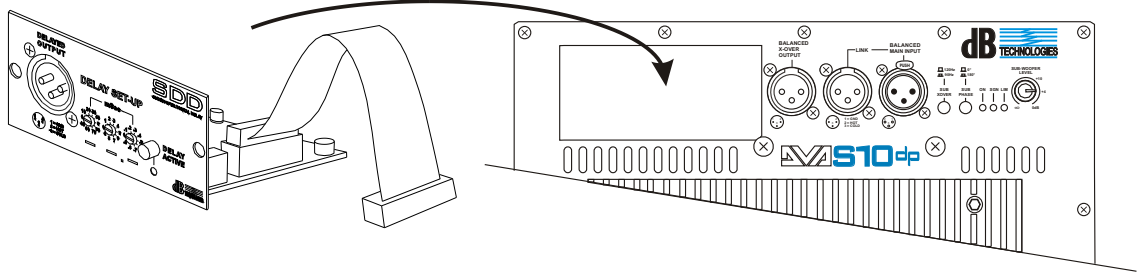


In appoggio a pavimento con supporto asta provvisto di piedi  
 Groundstack to floor with stand adaptor with feet



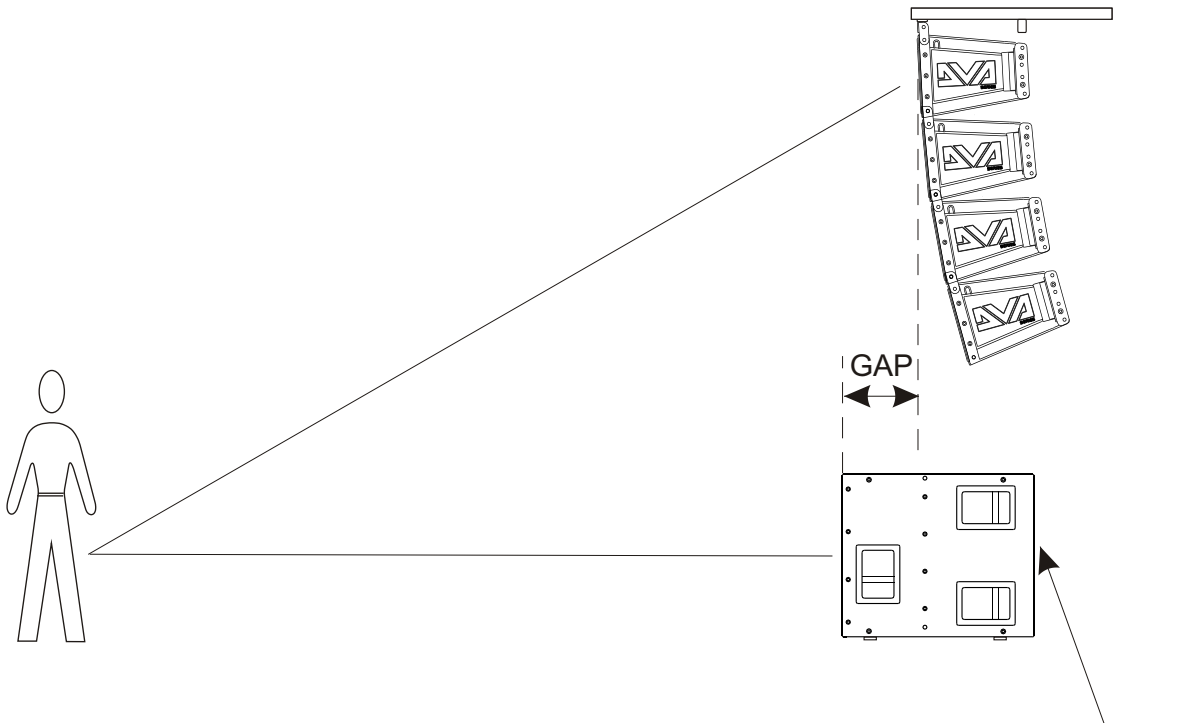
Set di 4 ruote - opzione DWK 20  
 Set of 4 wheels - DWK 20 option





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

ALLINEAMENTO SEGNALE AUDIO  
ALIGNMENT AUDIO SIGNAL

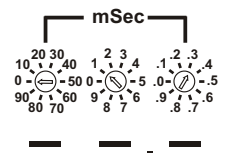


$$\text{Delay setup} = (\text{GAP} \times 1000) / 344$$

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

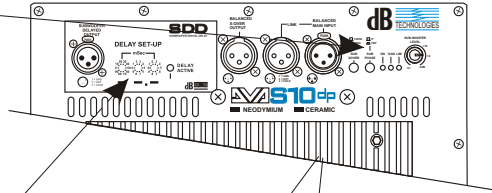
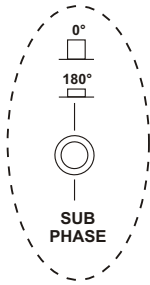
Delay = ms (specify milliseconds)  
GAP = m (specify meters)  
Sound speed = 344 m/s

**DELAY SET-UP**

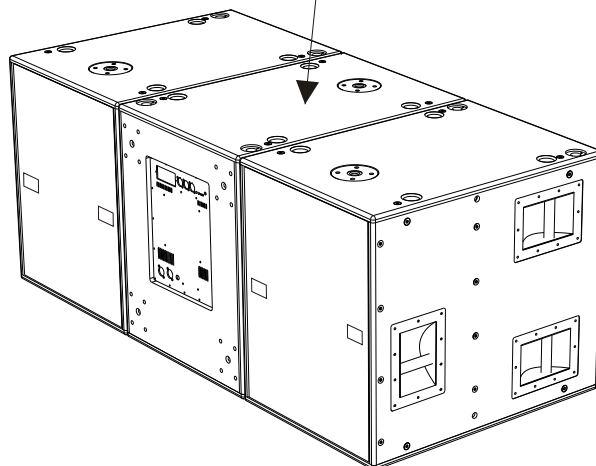
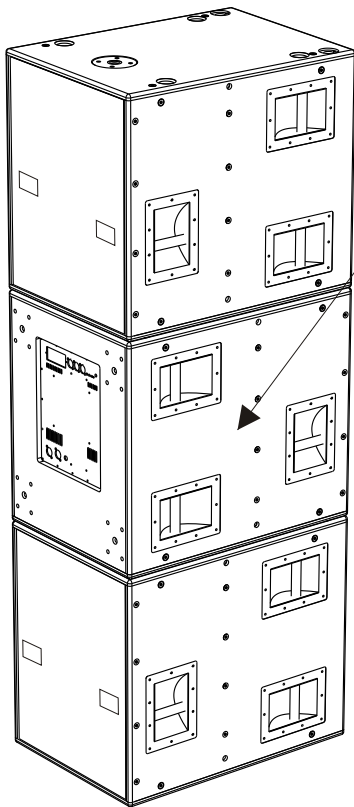
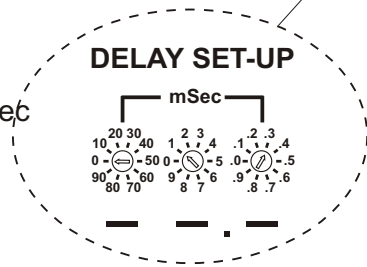


**CONFIGURAZIONE CARDOIDE**  
**CARDIOID CONFIGURATION**

Ruotare la fase di 180°  
 Rotate 180° phase



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





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