

**Digital Vertical Array**



Made in ITALY

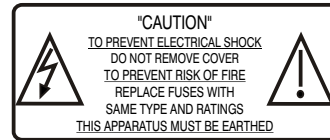
MANUALE D'USO  
USER MANUAL  
BEDIENUNGSANLEITUNG  
CARACTERISTIQUES TECHNIQUES

420120118 - Rev 2

## IMPORTANT SAFETY INSTRUCTIONS

**CAUTION:** TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE THE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE; REFER SERVICING TO QUALIFIED PERSONNEL.

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK. DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure - voltage that may be sufficient to constitute a risk of shock.



This symbol wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Read the manual.

## DETAILED SAFETY INSTRUCTIONS:

### *Read these instructions:*

All the safety and operation instructions should be read before the appliance is operated.

### *Keep these instructions:*

The safety and operating instructions should be retained for future reference.

### *Heed all Warnings:*

All warnings on the appliance and in the operating instructions should be adhered to

### *Follow all instructions:*

All operation and user instructions should be followed

### *Water and Moisture:*

Do not use this apparatus near water (e.g. near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool etc.)

### *Cleaning:*

Clean only with a dry cloth. Do not use solvents, alcohol, benzene or volatile substances for cleaning the exterior parts.

### *Ventilation*

Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions. The appliance should be situated so that its location or position does not interfere with its proper ventilation.

### *Heat:*

Do not install the appliance near any heat sources such as radiators, heat registers, stoves, or other appliance (including amplifiers) that produce heat.

### *Grounding or Polarization:*

Do not defeat the safety purpose of the polarized or grounding/type plug. To prevent the risk of electrical shock, the metallic parts of the speaker must be earthed. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

Speaker shall be connected to a MAINS socket outlet with a protective earthing connection.

### *Power Source*

The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance. In order not to jeopardize the safety of the speaker, it must only be connected to the mains using the power cable provided.

DPDT Mains Switch is used as the disconnect device located at the rear.

### *Power Cord Protection:*

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

### *Accessories:*

Only use attachments/accessories specified by the manufacturer.

### *Carts and stands:*

Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart-appliance combination to avoid injury from tip-over.

**Non-use Periods:**

Unplug this apparatus during lightning storms or when unused for long periods of time.

**Object and Liquid Entry**

Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

**Damage Requiring Service**

Refer all servicing to qualified service personnel. Servicing is required when:

- the apparatus has been damaged in any way;
- the power supply cord or the plug has been damaged;
- Objects have fallen, or liquid had been spilled into the appliance;
- The appliance has been exposed to rain or moisture;
- The appliance does not appear to operate normally or exhibits a marked change in performance;
- The appliance had been dropped.

**Servicing:**

The user should not attempt to service the appliance beyond that is described in the Operating Instructions. All other servicing should be referred to qualified service personnel.

**IMPORTANT NOTES**

This manual is to be considered an integral part of the product, and must always accompany the speaker when it changes ownership as a reference for correct installation and operation as well as for the safety regulations.

dB Technologies will not assume any responsibility for incorrect installation of the speaker.

**OPERATING PRECAUTIONS**

- Do not force the amplifier incorporated in the speaker to work in overload for extended periods of time.
- Never force the control elements (switches, controls, etc.).

**CAUTION**

- Make sure that the speaker is positioned in a stable and secure way in order to avoid any dangerous conditions for persons or objects.

**CONNECTION****CAUTION**

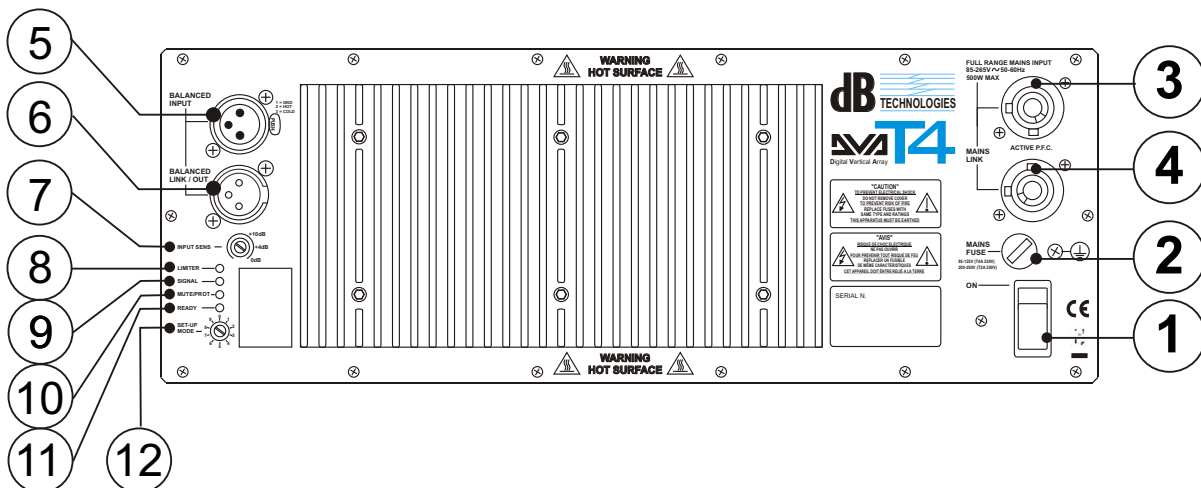
- For connecting the speaker, use only qualified and experienced personnel having sufficient technical knowledge or specific instructions for making the connections correctly and thus preventing electrical dangers.
- To prevent the risk of electrical shock, the speaker must only be supplied from the mains after all connections have been completed.
- Before powering up the speaker, it is advisable to re-check all the connections, making sure in particular that there are no short circuits.
- The entire sound system must be designed and installed in compliance with the current standards and regulations regarding electrical systems.

**CAUTION**

- To prevent inductive phenomena from giving rise to hum or disturbance which would jeopardize efficient speaker operation, the cables that transmit microphone signals or line level signals (e.g. 0 dB/V) must be screened and should not be run in the vicinity of:
  - 1) Equipment that produces strong magnetic fields (e.g. large power supply transformers)
  - 2) Electrical energy conductors
  - 3) Lines that supply speakers.

## CONTROLS AND FUNCTIONS

- 1) **POWER SWITCH**  
This switch permits turning the speaker on and off.
- 2) **"MAINS FUSE" FUSE CARRIER**  
Mains fuse housing.
- 3) **"MAINS INPUT" POWER SOCKET**  
For connecting the power cable provided.  
The connector used for mains connection is a POWER CON® (blue)
- 4) **"MAINS OUTPUT LINK" RELAUNCH POWER SOCKET**  
For relaunching the mains power. The output is connected in parallel with input (3) and can be used to power another amplified speaker.  
The connector uses a POWER CON® (grey)
- 5) **"BALANCED INPUT" INPUT CONNECTOR**  
Balanced input at line level. It is able to accept "XLR" sockets.
- 6) **"BALANCED LINK/OUT" 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) **"INPUT SENS" INPUT SENSITIVITY CONTROL**  
This control regulates the sensitivity of the signal amplifier input.  
This control does not affect the "BALANCED LINK/OUT" output level
- 8) **"LIMITER" 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.
- 9) **"SIGNAL" INDICATOR LIGHT**  
This indicator comes on green to indicate the presence of the audio signal (at a level of -20dB).
- 10) **"MUTE/PROT" INDICATOR LIGHT**  
This yellow indicator indicates amplifier status. In normal operating conditions, the LED is off; if it flashes or is always on, refer to the diagnostics table to check amplifier status.
- 11) **"READY" INDICATOR LIGHT**  
This indicator comes on green to indicate that the main power voltage is correct. In normal operating conditions, the LED is on; if it flashes or is off, refer to the diagnostics table to check amplifier status.
- 12) **"SET-UP MODE" EQUALIZATION SWITCH**  
This 10-position rotating switch permits selection of the equalization curve according to installation type.  
See table for corresponding equalization curve.



## DIAGNOSTICS TABLE

MODULE STATUS	LED "READY" (green)	LED "MUTE/PROT" (yellow)	AUDIO FUNCTIONS
Power ON	Off	On for 5 sec.	Data loading In mute for 5 sec.
Normal use	On	Off	Complete
Equalization changing	Off	On for 5 sec.	Data loading In mute for 5 sec.
Teilweise fault	On	Slow flashing	teilweise
Total fault	On	Slow flashing	In mute
Amplifier temperature: higher 70°C	On	Slow flashing	Output volume Reduction step
higher 80°C	On	Fast flashing	Output volume reduction -15dB

### "NOISE GATE" function

NOISE GATE, or residual noise suppressor, is a function to reduce noise of the speaker without input audio signal applied.

NOISE GATE starts to work when there is no audio signal on input, after a few seconds, it sets the amplifier section in MUTE state. MUTE state is indicated by slow flashing, of "MUTE/PROT" yellow led. As soon as the audio signal passes the input section, the speaker is set out of MUTE status automatically.

This option can be enabled and disabled according to the following procedure on the amplifier's module.

#### 1) How to check NOISE GATE status

The NOISE GATE status is visualized by the leds located on the amplifier panel during switching on the module.

Function enabled = all leds flash steady for 5-6 seconds.

Function disabled = only "MUTE/PROT" yellow led flashes steady for 5-6 seconds

#### 2) NOISE GATE enabled/disabled

NOISE GATE enabled/disabled can be done each time when switching ON and OFF the amplifier module with "SET-UP MODE" selector on position "9" (service use only).

To enable/disable NOISE GATE function follow this procedure:

- Amplifier switched OFF
- Set "SET-UP MODE" selector in position "9"
- Switch ON the amplifier module and check following:
  - \* if "LIMITER" red led steady flashes for a few seconds, the NOISE GATE is enabled.
  - \* if "LIMITER" red led flashes fast for a few seconds, the NOISE GATE is disabled

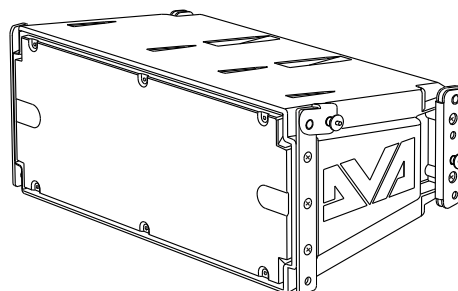
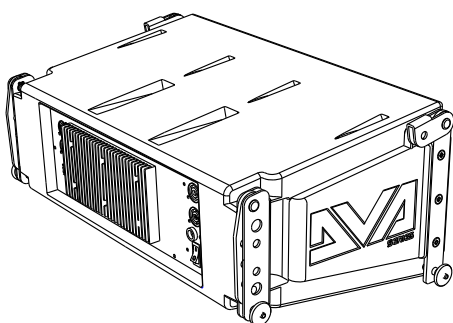
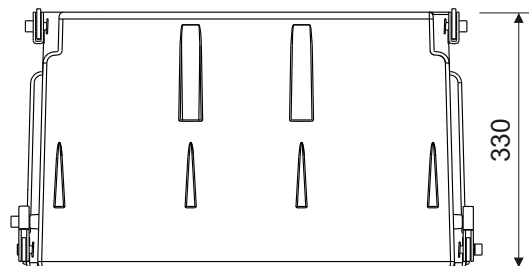
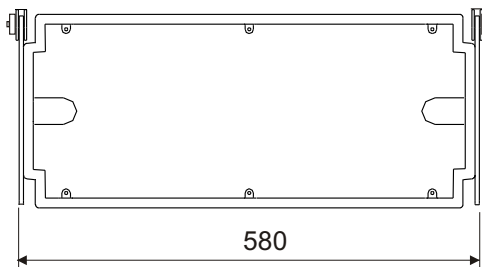
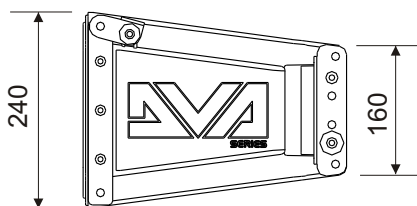
#### Warning!



After enabling or disabling the NOISE GATE function, switch off the amplifier, select "SET-UP MODE" selector in any equalization position (except of "9" position) and switch the system ON.

## TECHNICAL SPECIFICATION

System	Active 3-Amps
Type of amplifier	Digital - Class T
RMS power	420 W
Musical power	840 W
Frequency response +/-3dB	80-19.000Hz
Crossover	420 - 2500Hz 24dB/oct
Sound pressure (SPL)	128 peak
Component parts	1 woofer 8" - coil 64mm - neodymium 1 midrange 6,5" - coil 38mm - neodymium 2 compression driver da 1" - neodymium
Input sensitivity nominal	0 dBu
Impedance Balanced Unbalanced	20Kohm 10Kohm
Delay totale	1,2mS
Power supply	full-range with PFC 85-265V~ 50-60Hz
Speaker shape	trapezoid
Dimension [LxHxP]	580x330x240/160mm
Weight	13,2Kg



## INSTALLATION

DVA system has obtained the TÜV certification for suspension of DVA T4 and DVA S10 speakers through flybar stirrup DRK 10.

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

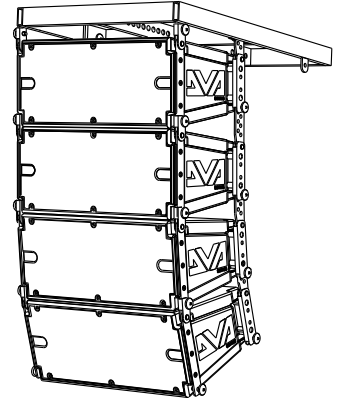
### DVA T4 configuration

The DRK 10 flybar attests that the maximum number of DVAT4 is 16.

Refer to table 1 to determine the total weight borne by flybar according to the different DVAT4 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



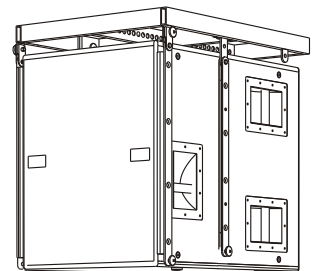
### DVA S10 configuration

The DRK 10 flybar attests that the maximum number of DVAS10 is 4.

Refer to table 1 to determine the total weight borne by flybar according to the different DVAS10 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 S10

The modular structure of DVA system permits mixed suspension configuration between DVA T4 and DVA S10. It is necessary to consider that one DVA S10 hanging subwoofer corresponds, in weight terms, to four DVAT4 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>222Kg</b>
DVA S10	2	102Kg	

	Quantity	Weight x qty	Configuration weight
DVA T4	12	180Kg	<b>231Kg</b>
DVA S10	1	51Kg	

## 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

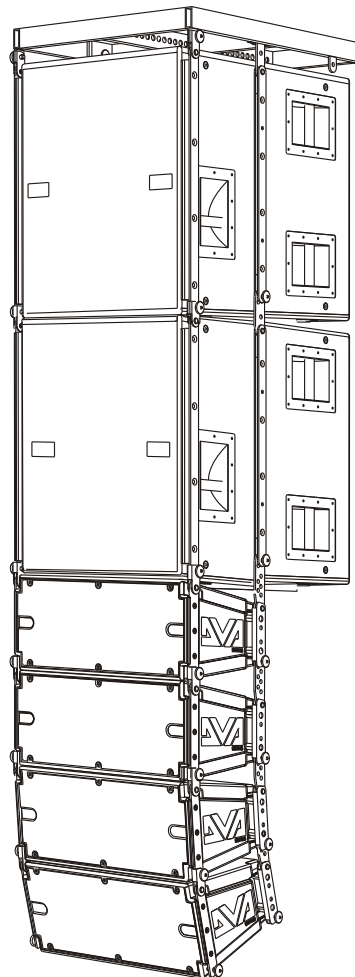
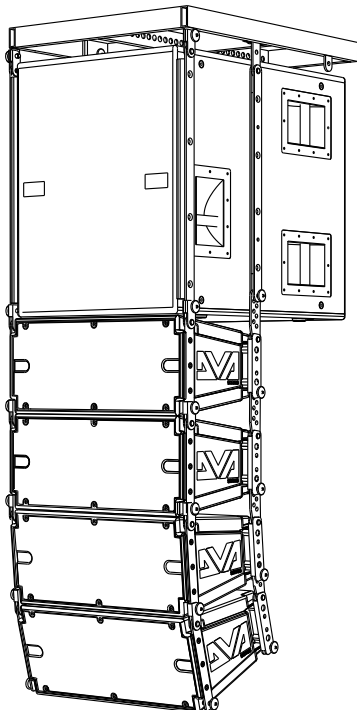
§ 39, VBG 9a of the German employers' liability insurance association's accident prevention regulations requires that load-carrying equipment be inspected by a qualified expert and possible defects be eliminated prior to initial commissioning by the recipient.

§ 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!

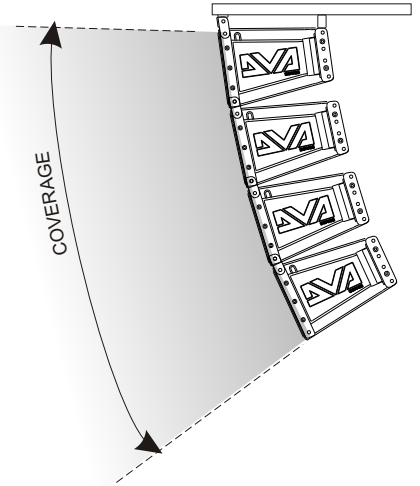




# CONFIGURATION SYSTEM

## DVA T4 PRESET EQUALIZATIONS

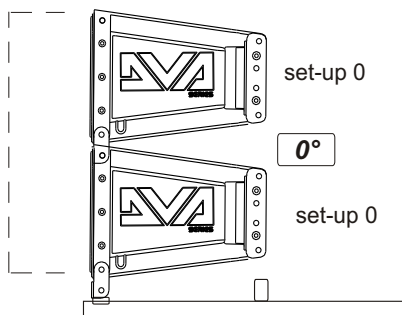
NUMBER OF BOXES	SHAPE	ANGLES	EQU SET
FROM 1 TO 2	STRAIGHT	from 0° to 2,5°	0
	CURVED	from 5° to 15°	1
FROM 3 TO 5	STRAIGHT	from 0° to 2,5°	2
	CURVED	from 5° to 15°	3
FROM 6 TO 8	STRAIGHT	from 0° to 2,5°	4
	CURVED	from 5° to 15°	5
FROM 9 TO 12	STRAIGHT	from 0° to 2,5°	6
	MID CURVED	from 5° to 7,5°	7
	CURVED	from 10° to 15°	8
SERVICE USE ONLY			9



## SET-UP EXAMPLES

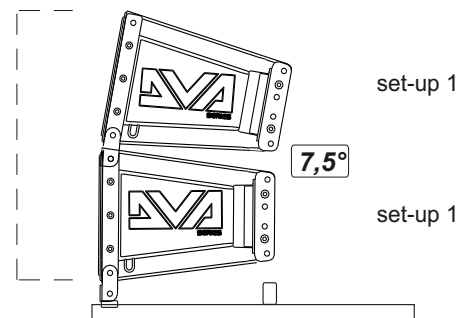
CONFIGURATION : FRONT FIELD  
N° OF BOX: 2

STRAIGHT  
from 0° to 2,5°



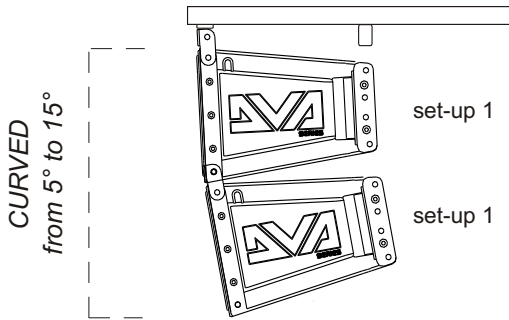
CONFIGURATION : FRONT FIELD  
N° OF BOX: 2

CURVED  
from 5° to 15°

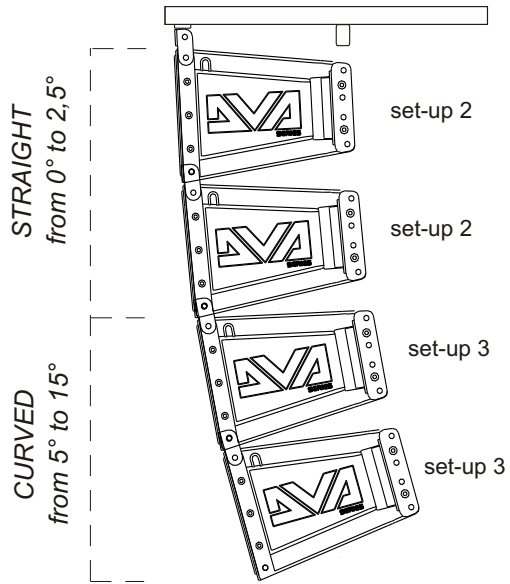


# SET-UP EXAMPLES

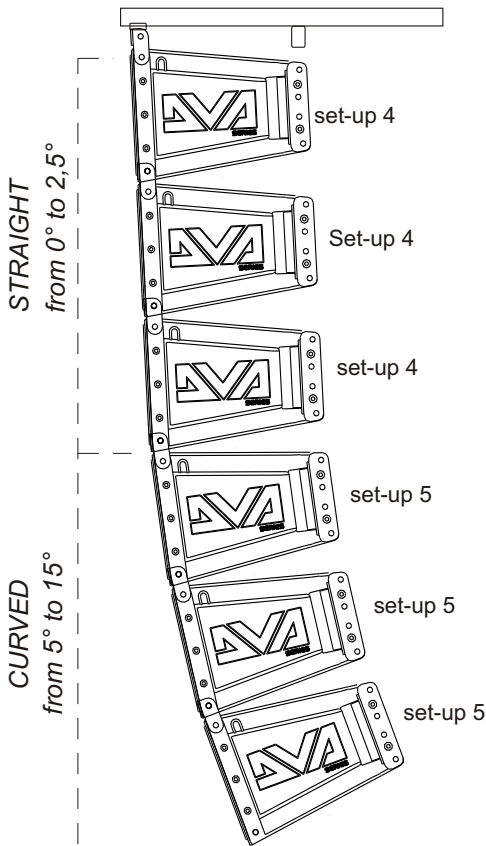
**N°OF BOXES: 2**



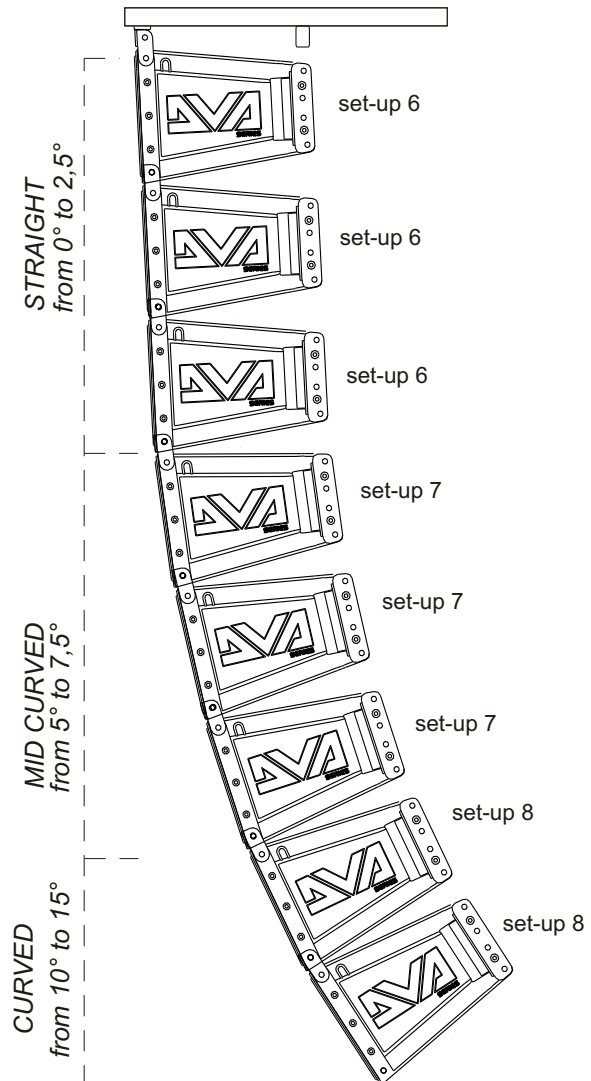
**N°OF BOXES: 4**



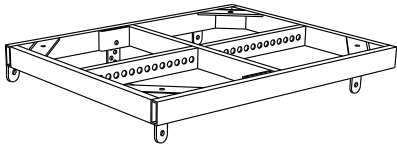
**N°OF BOXES: 6**



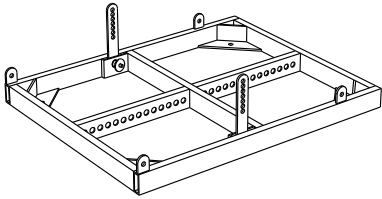
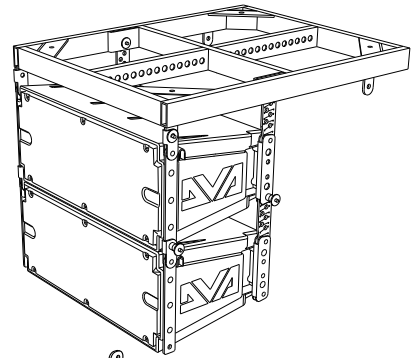
**N°OF BOXES: 8**



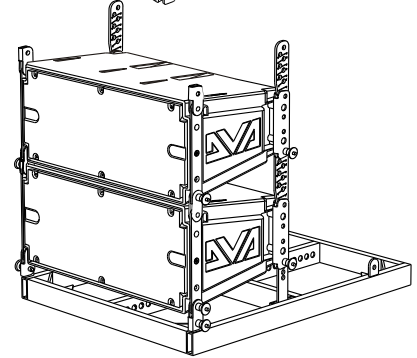
**DRK 10 accessorio  
Accessory DRK 10**



Appeso  
Hanging on

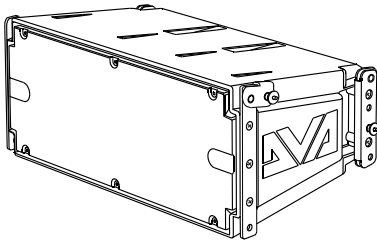


In appoggio  
Groundstack

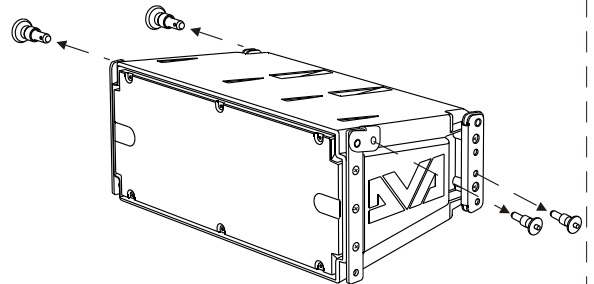


Appeso  
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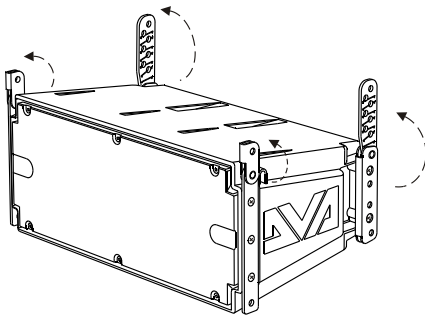
**INSTALLAZIONE  
INSTALLATIONEN**      **INSTALLATION  
INSTALLATIONS**



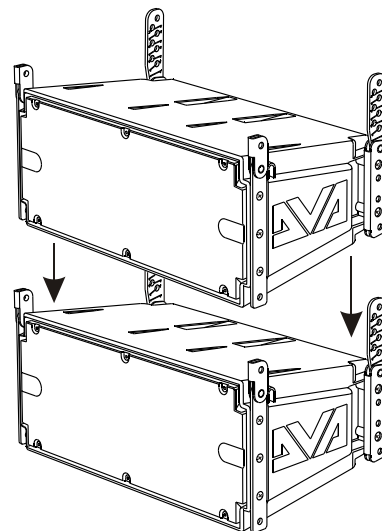
Phase 1



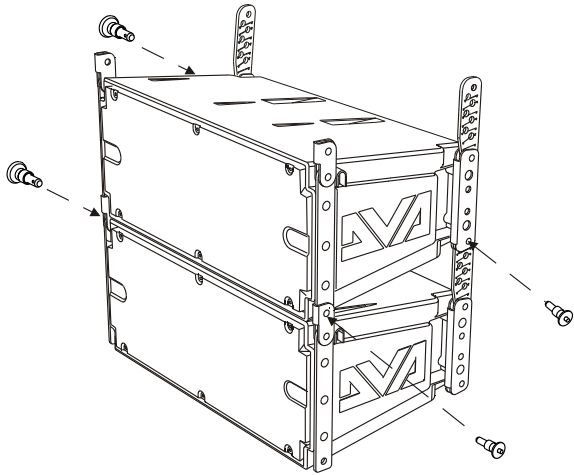
Phase 2



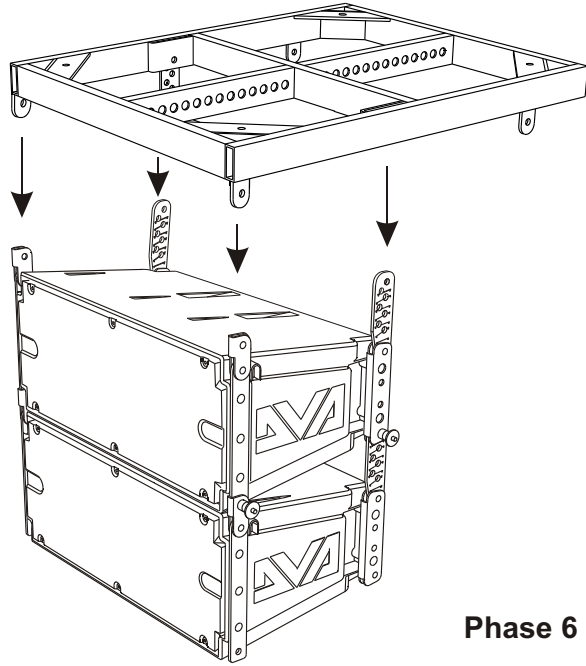
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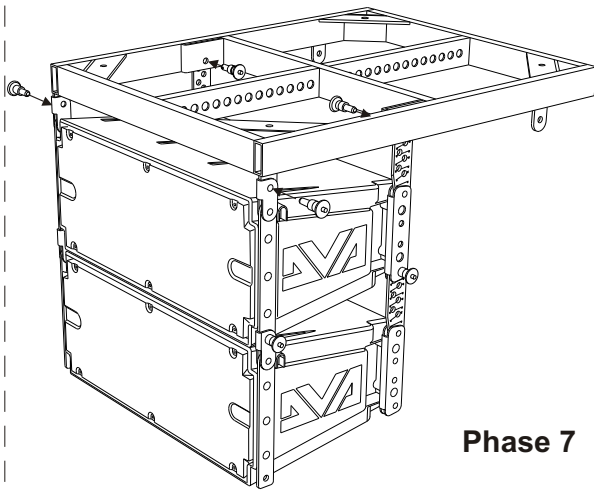
Phase 4



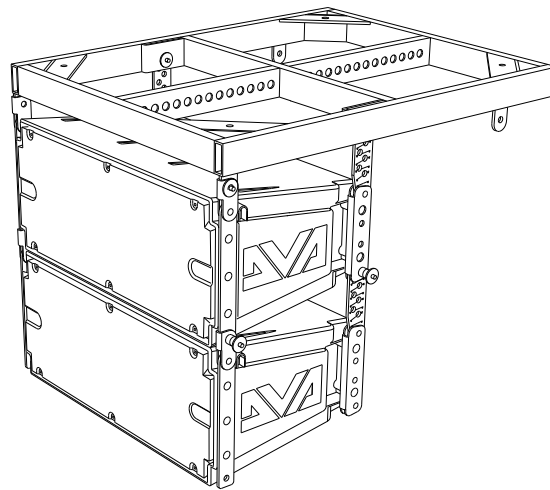
Phase 5



Phase 6

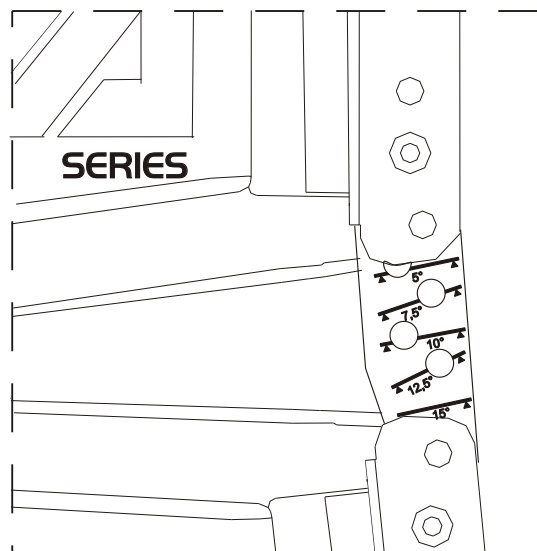
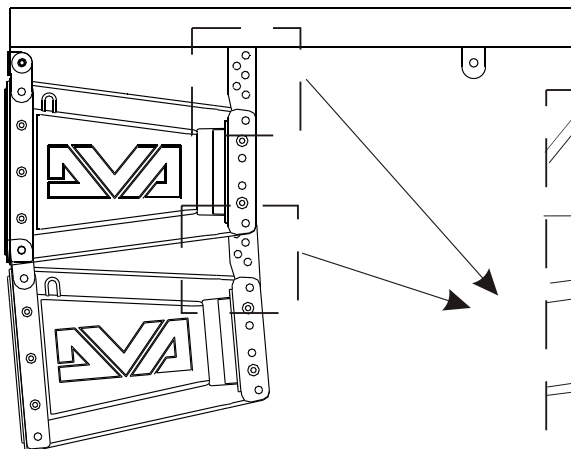


Phase 7



Phase 8

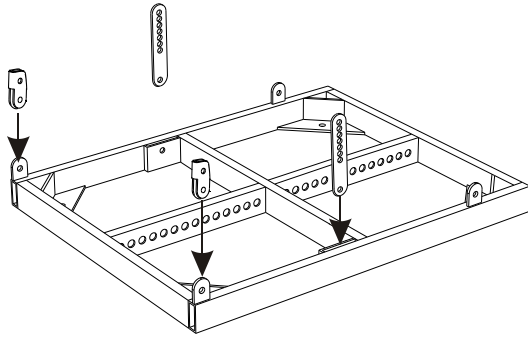
**INCLINAZIONE INCLINATION  
NEIGUNG INCLINAISON**



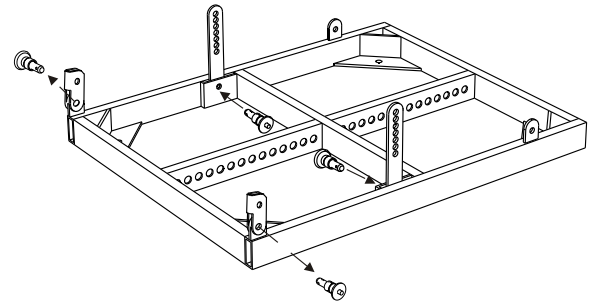
In appoggio  
Groundstack

INSTALLAZIONE  
INSTALLATIONEN

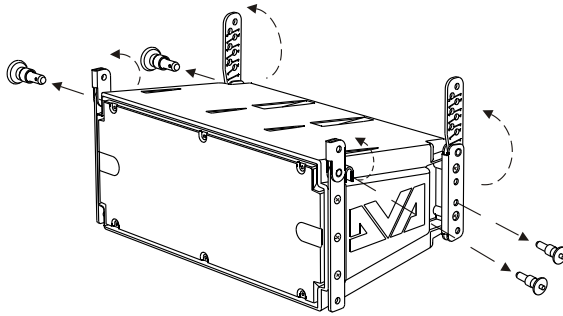
INSTALLATION  
INSTALLATIONS



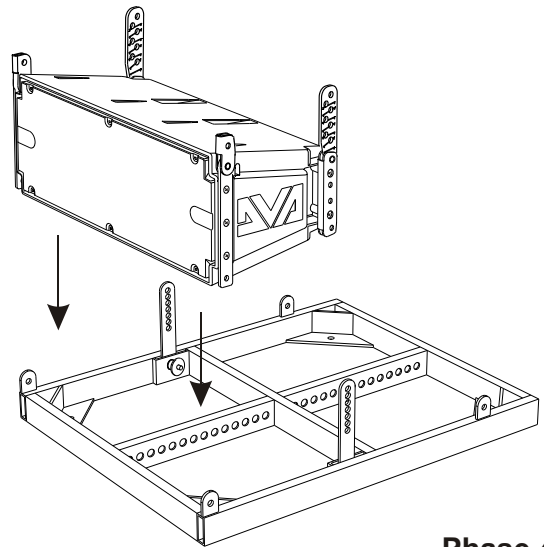
Phase 1



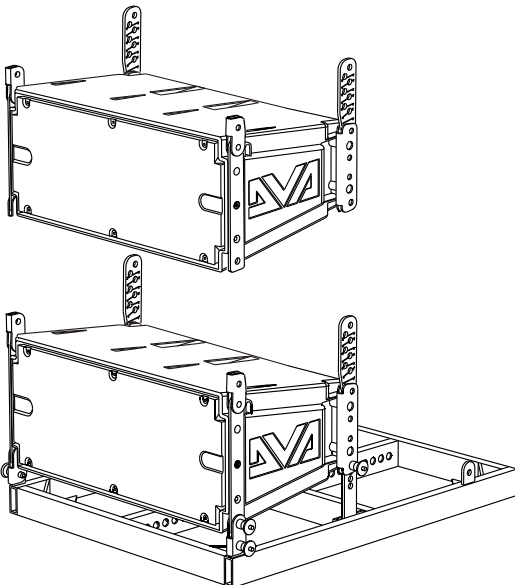
Phase 2



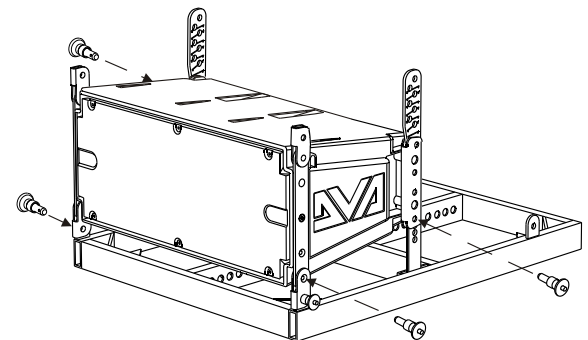
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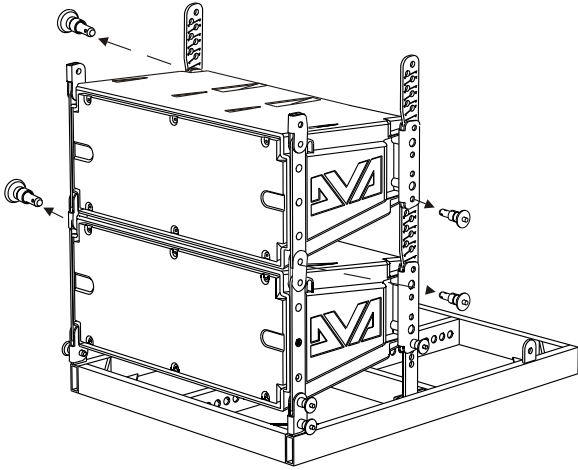
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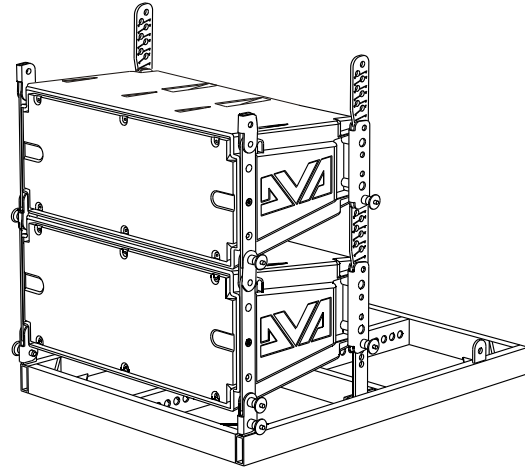
Phase 5



Phase 6

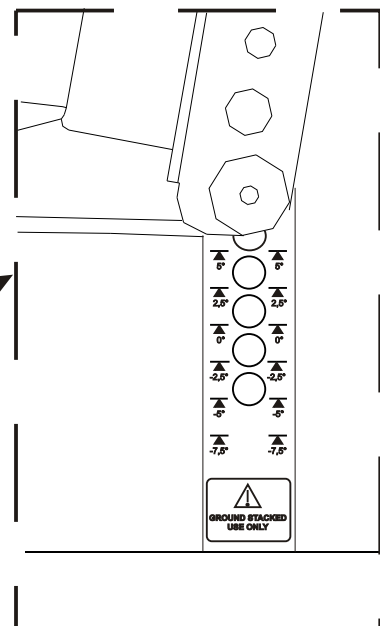
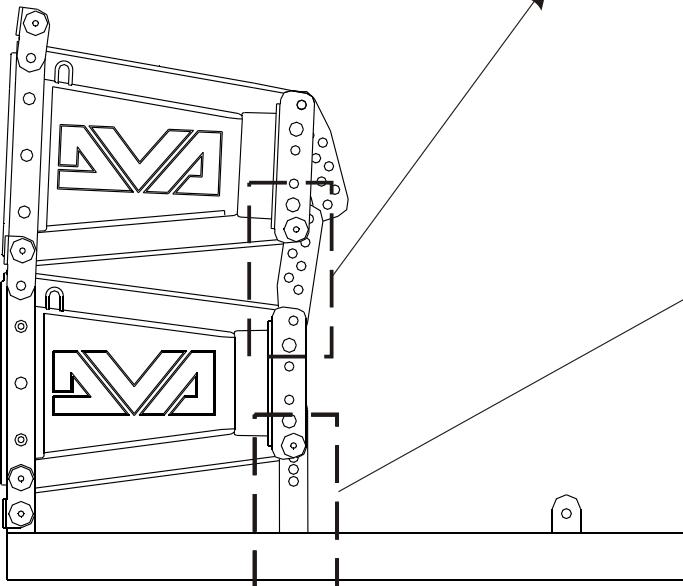


Phase 7



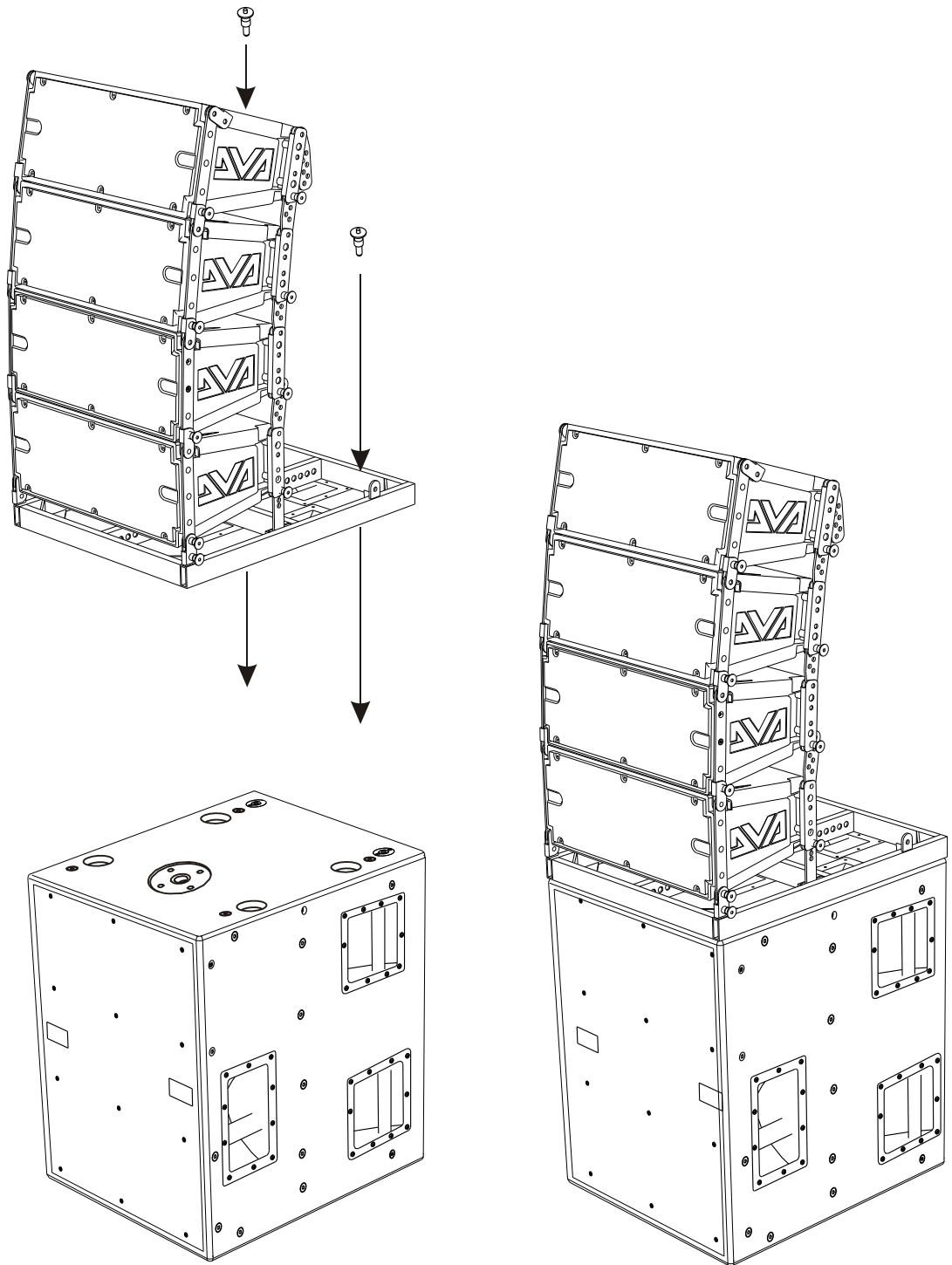
Phase 8

**INCLINAZIONE INCLINATION  
NEIGUNG INCLINAISON**



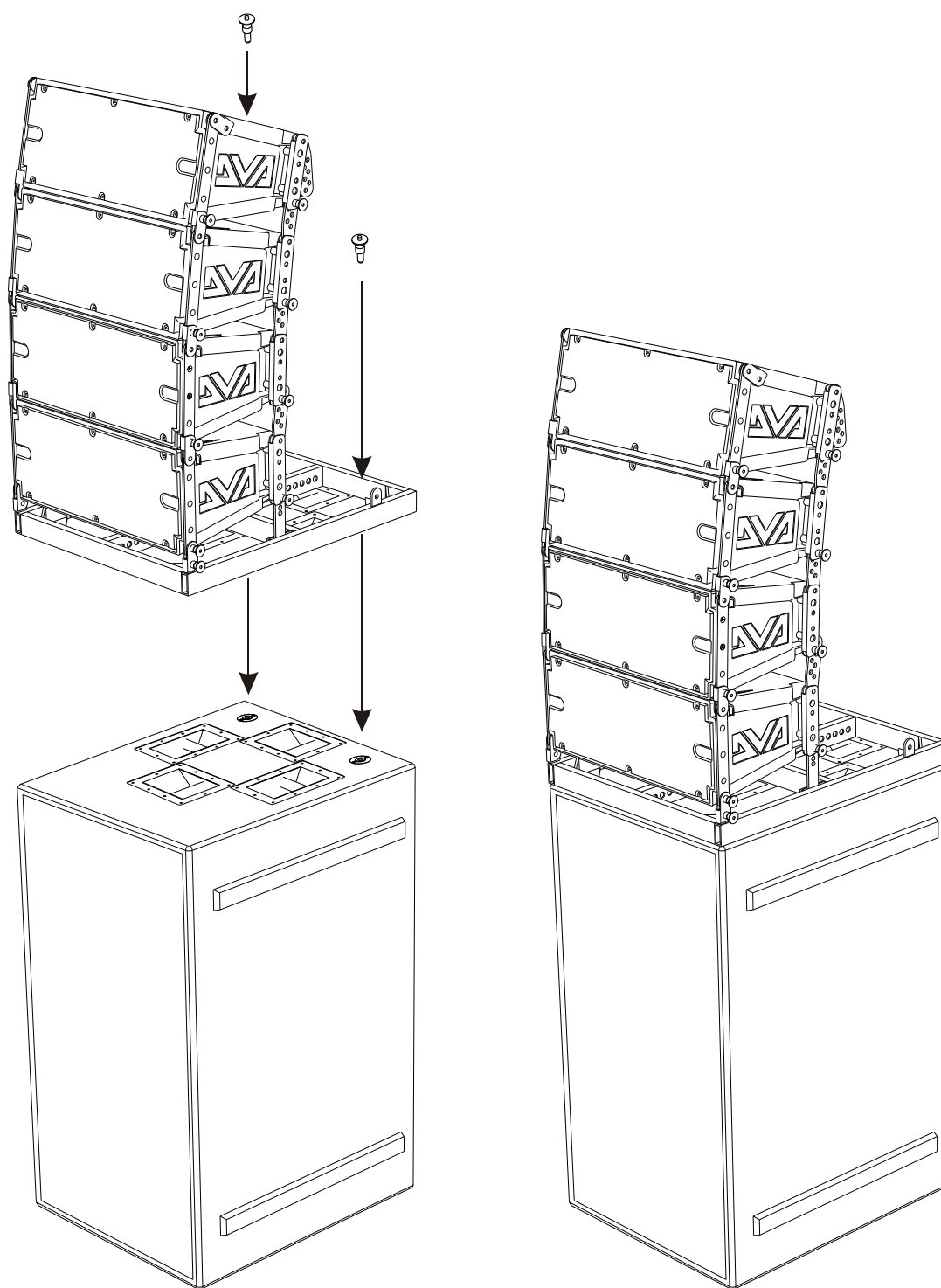
**GROUND STACKED  
USE ONLY**

## DVA T4 + DVA S10



Utilizzo in appoggio verticale (DVA T4 montaggio "Ground stacking")  
Supported use (DVA T4 "Ground stacking" assembling)

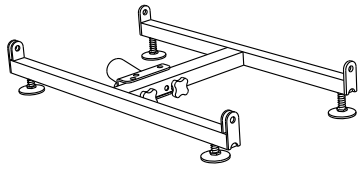
## DVA T4 + DVA S20



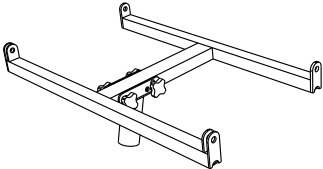
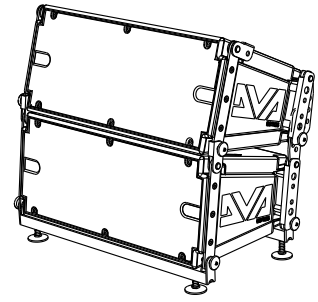
Utilizzo in appoggio verticale (DVA T4 montaggio "Ground stacking")  
Supported use (DVA T4 "Ground stacking" assembling)



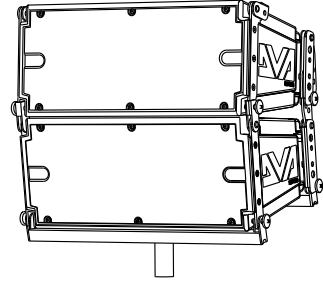
**Opzione DSA 4  
DSA 4 Option**



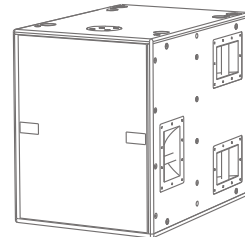
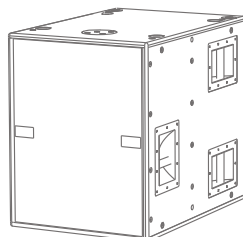
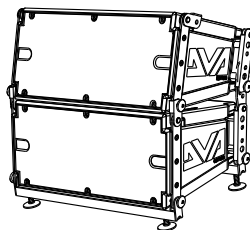
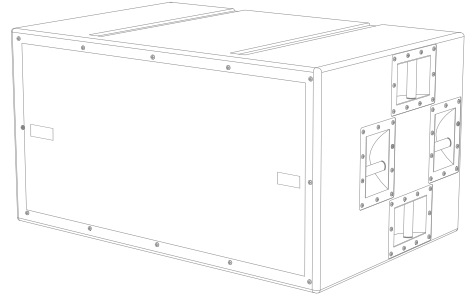
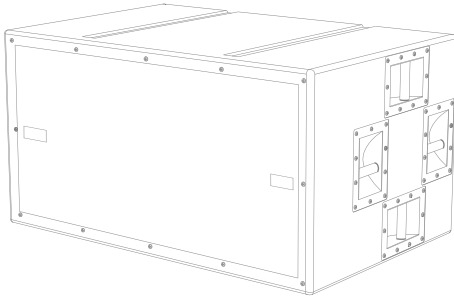
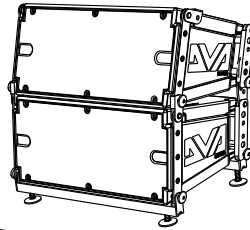
In appoggio  
Floor stack



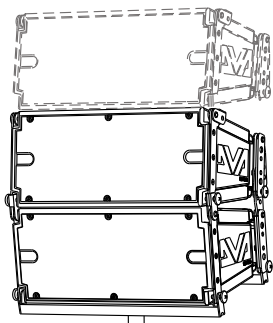
Per supporto asta  
Stand adaptor



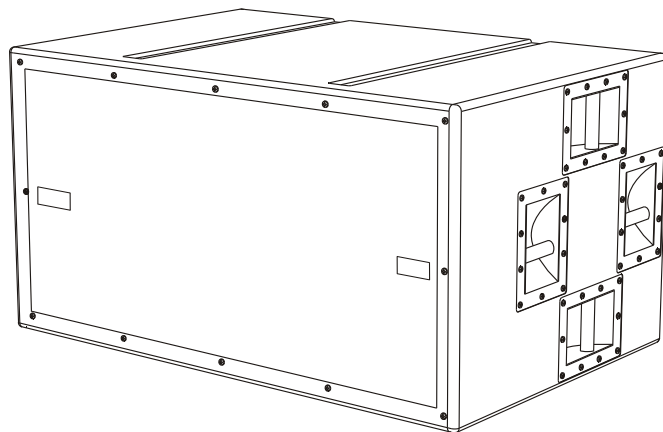
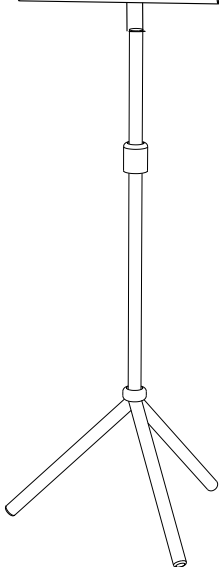
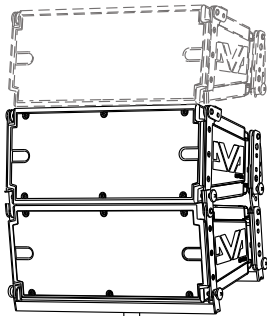
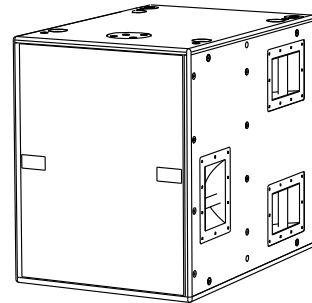
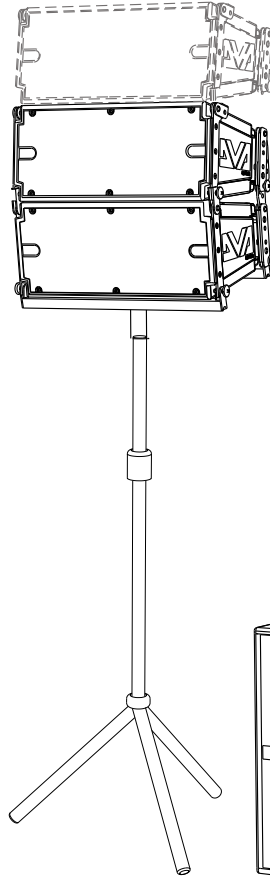
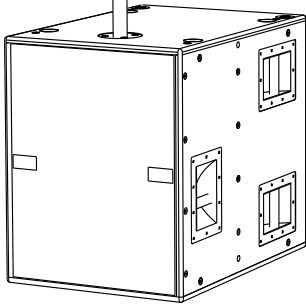
In appoggio  
Floor stack

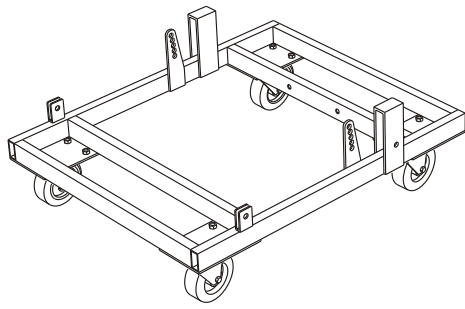


Per supporto asta  
Stand adaptor

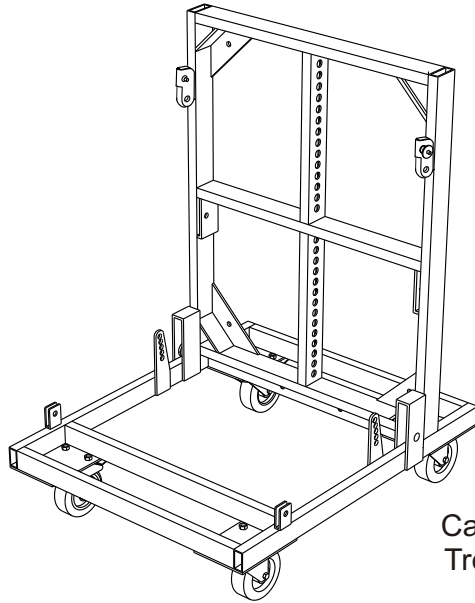


Solo con DVA S10  
Only with DVA S10



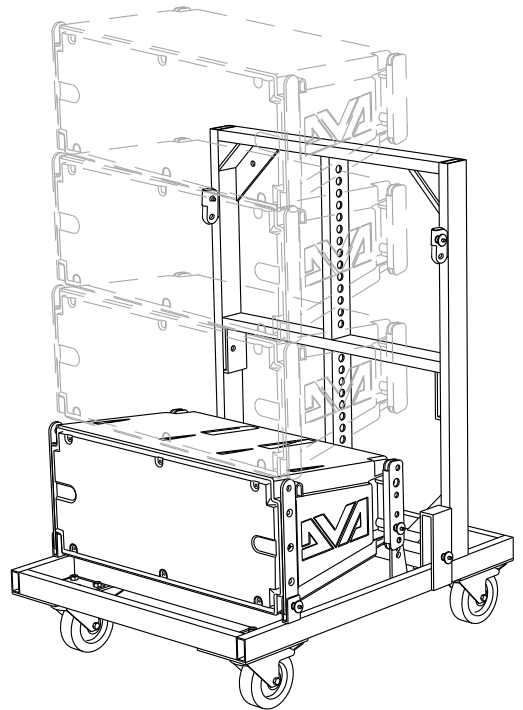
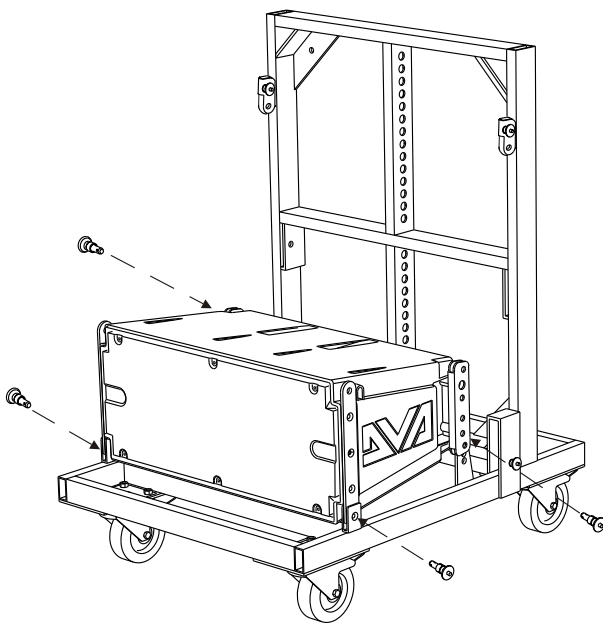


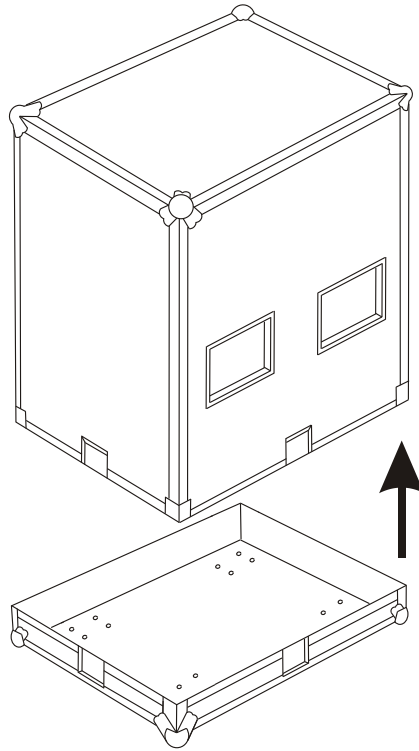
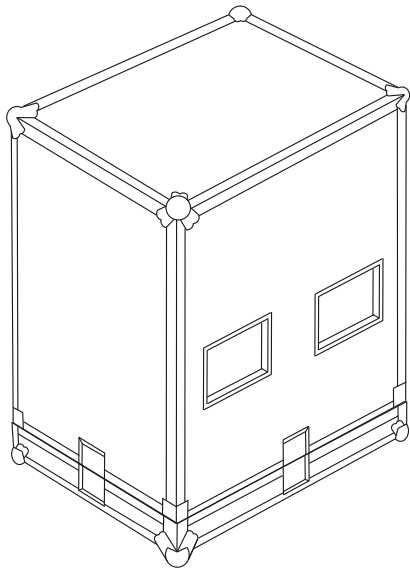
Carello - opzione DT 6  
Trolley - DT 6 option



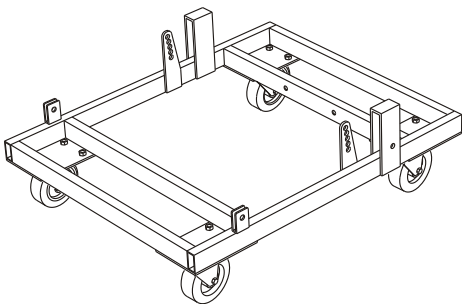
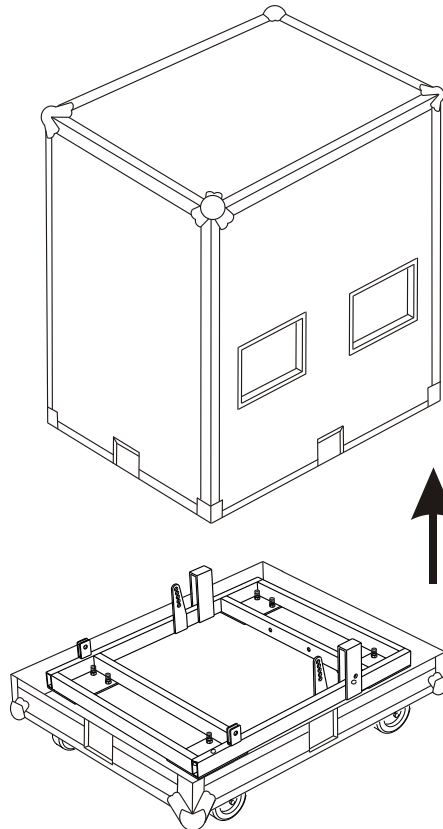
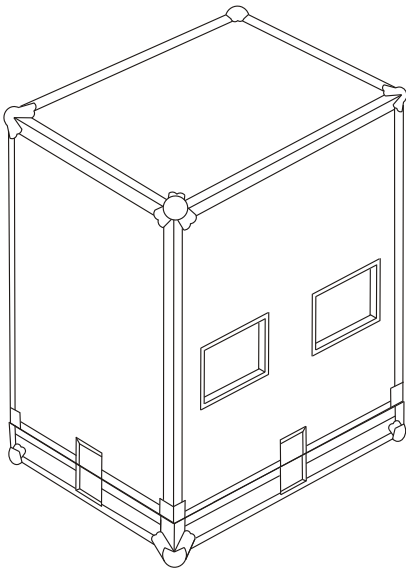
Flybar

Carello  
Trolley



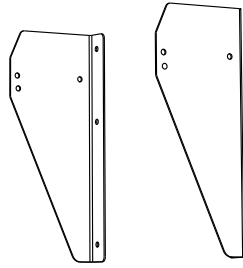
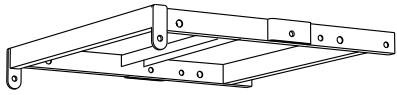


Flightcase per 4 DVA T4 - opzione DF 4  
Flightcase for 4 DVA T4 - DF 4 option



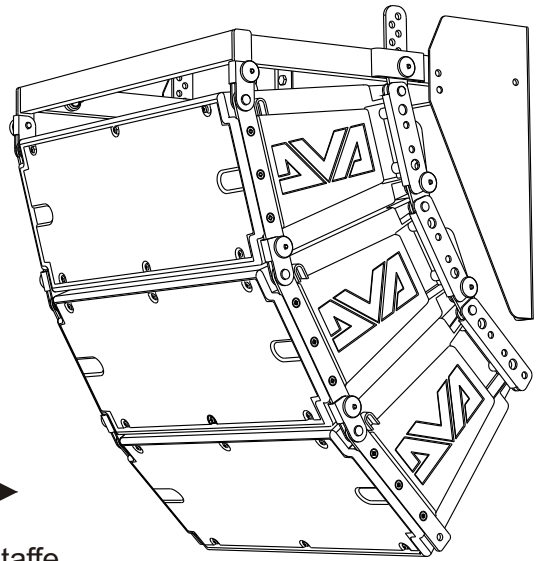
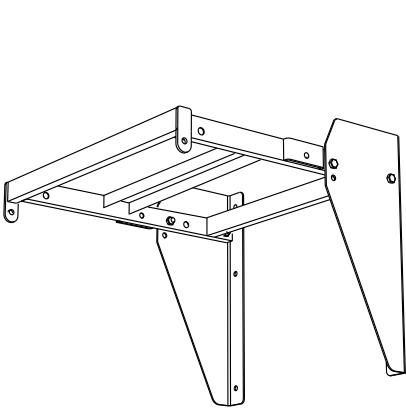
Opzione DTF 4  
DTF 4 Option

$$DTF 4 = DT 6 + DF 4$$

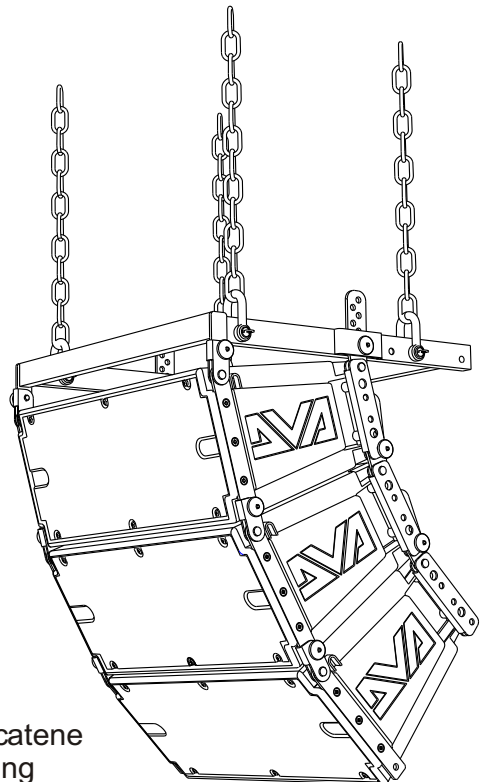
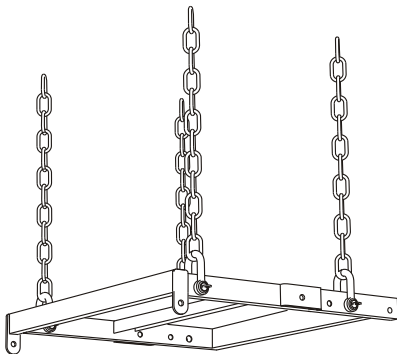


Staffa a muro - opzione DWB 3  
Wall bracket - DWB 3 option

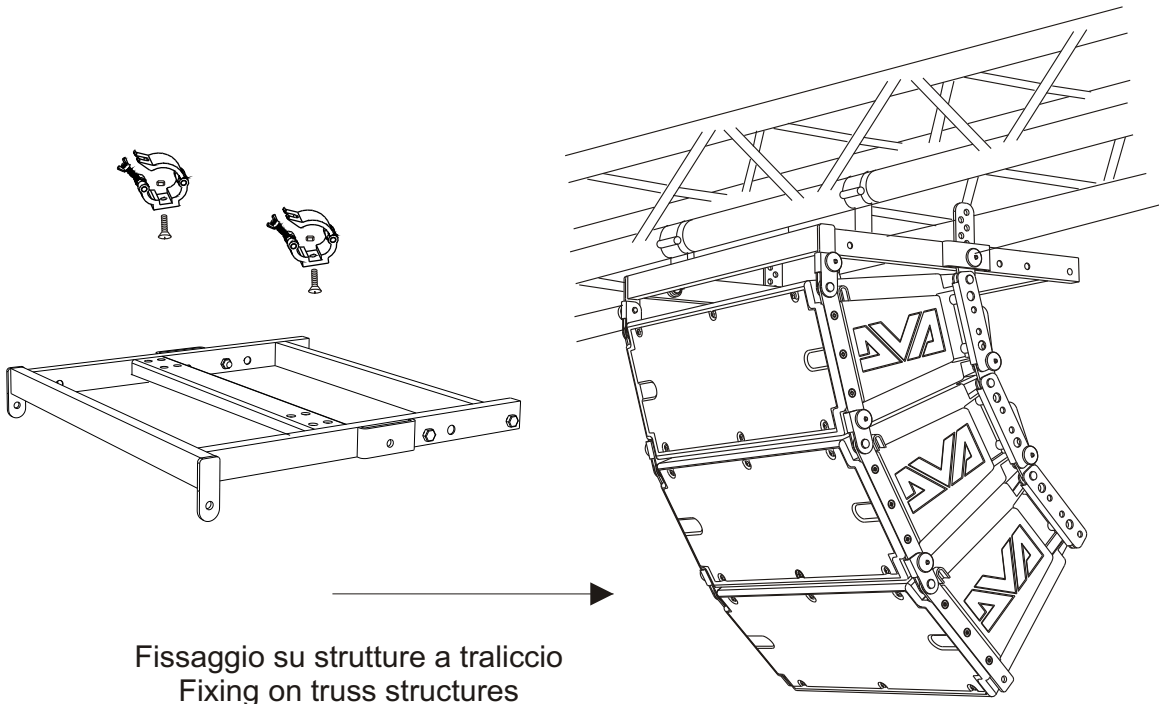
*Gli accessori per il fissaggio della staffa  
non sono forniti in dotazione  
The fixing accessory for wall bracket are  
not supplying with the kit*



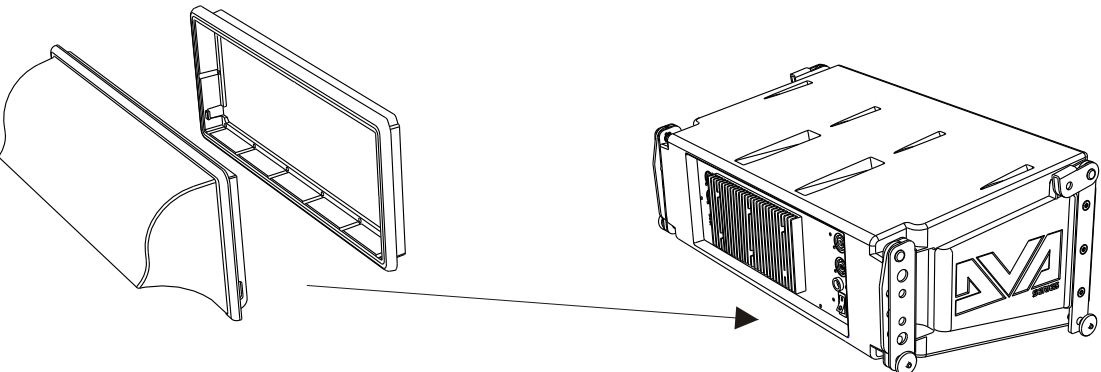
Fissaggio a muro con staffe  
Wall brackets fixing



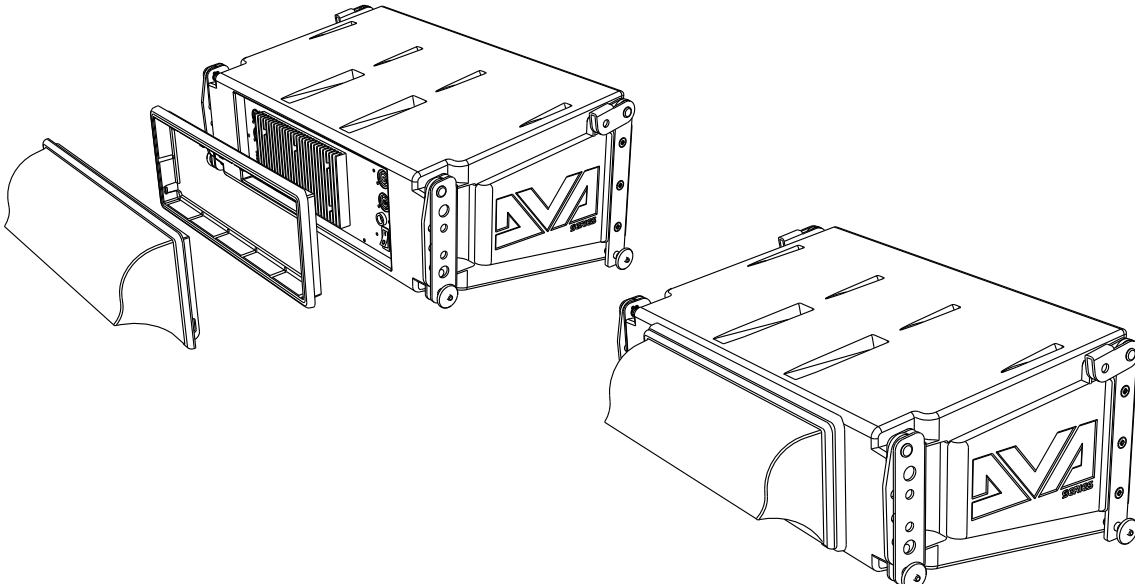
Fissaggio a muro con staffa e catene  
Wall bracket and chains fixing

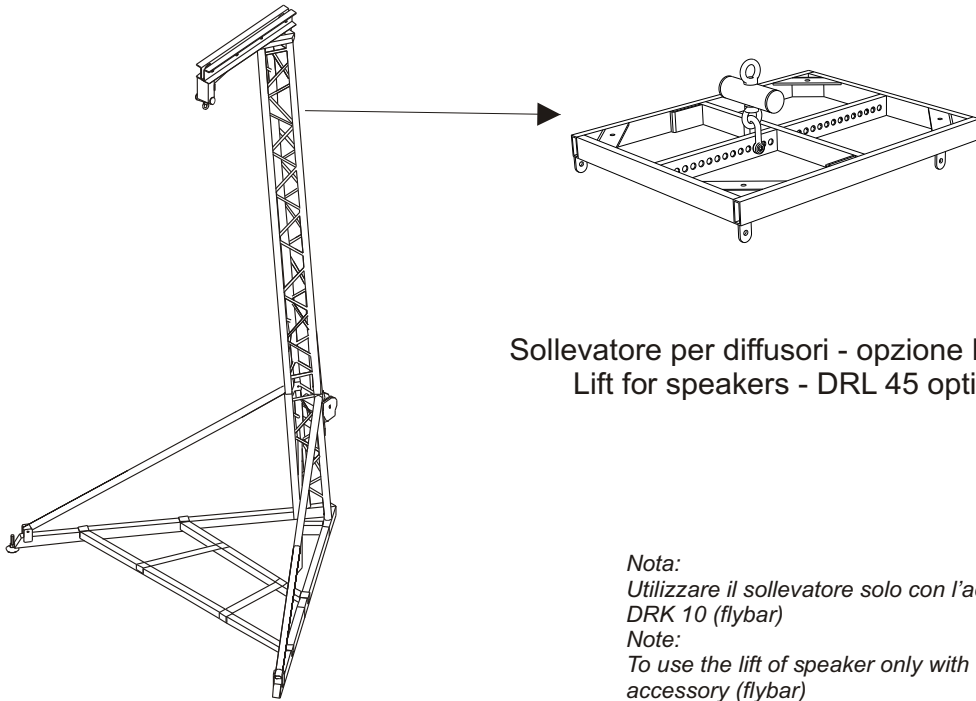


Fissaggio su strutture a traliccio  
Fixing on truss structures



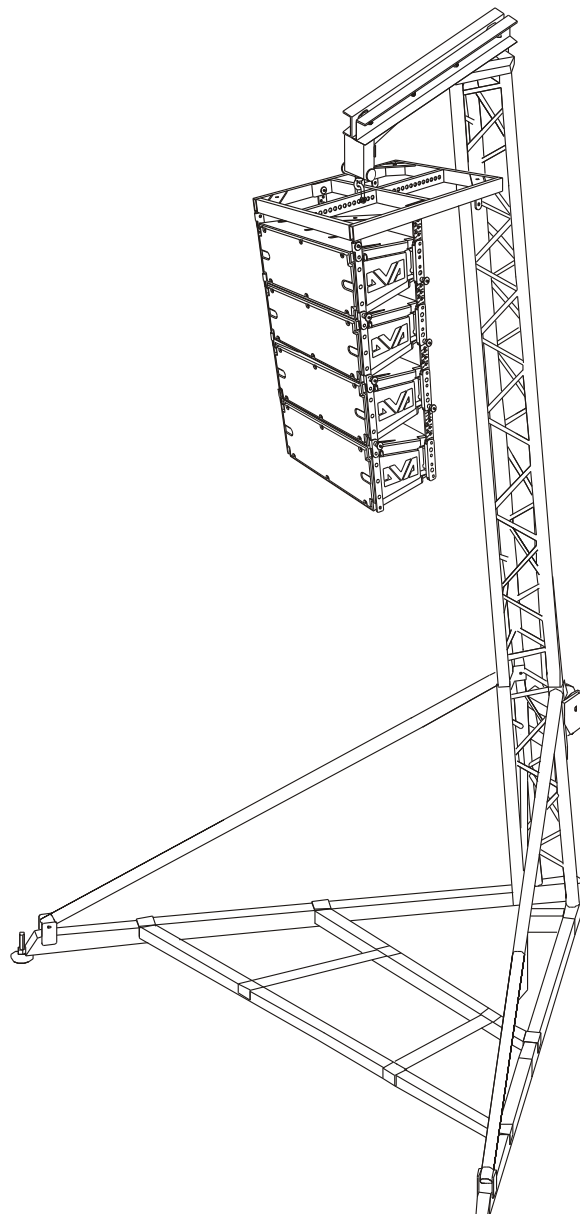
Protezione pioggia - opzione DSA 4  
Stand adaptor - DSA 4 option



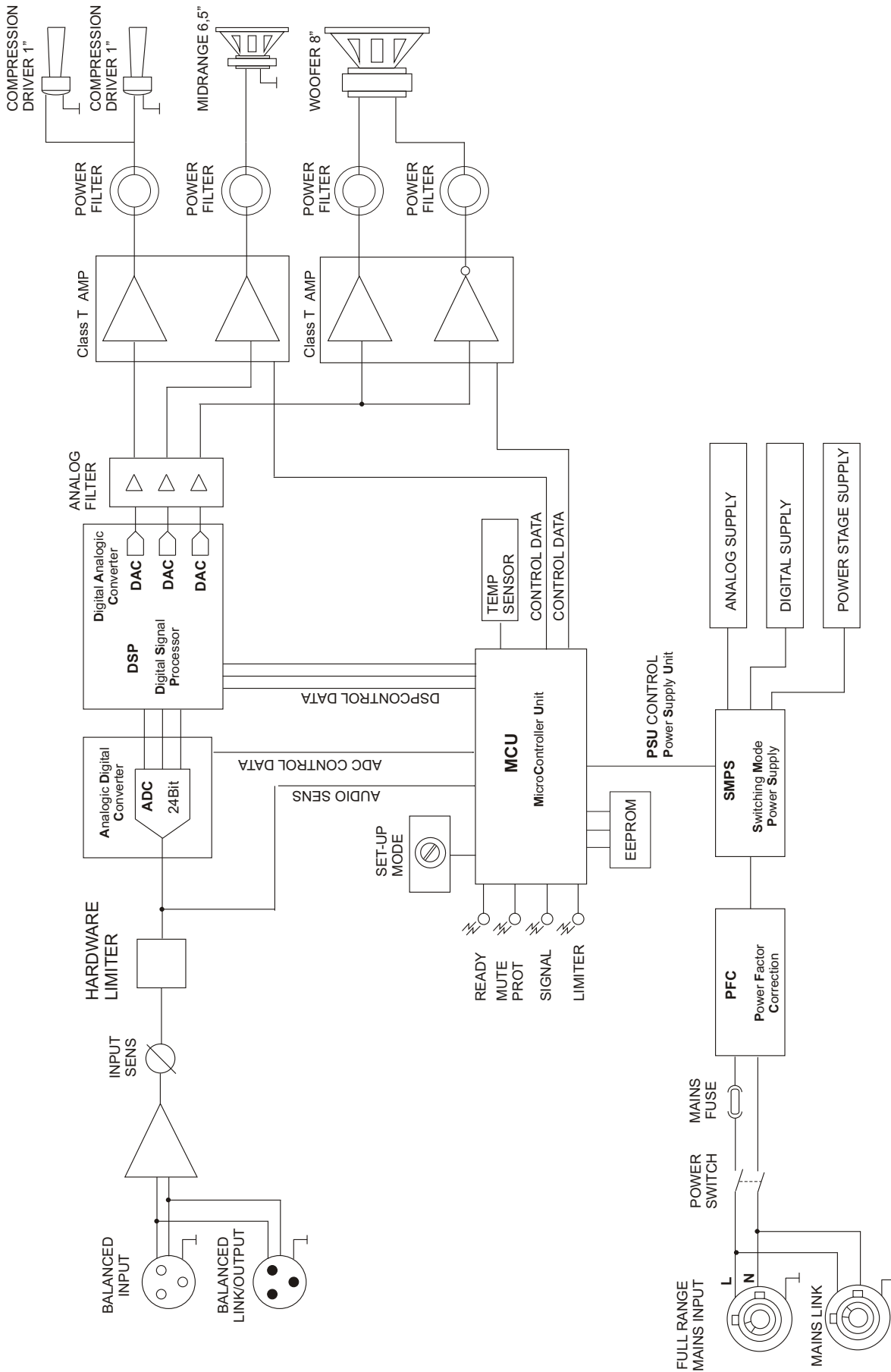


Sollevatore per diffusori - opzione DRL 45  
Lift for speakers - DRL 45 option

*Nota:*  
Utilizzare il sollevatore solo con l'accessorio  
DRK 10 (flybar)  
*Note:*  
To use the lift of speaker only with DRK 10  
accessory (flybar)



# SCHEMA A BLOCCHI BLOCK DIAGRAM BLOCKSCHALTBIKD DIAGRAMA EM BLOQUES







**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](http://www.dbtechnologies.com)

E-mail: [info@dbtechnologies-aeb.com](mailto:info@dbtechnologies-aeb.com)