



HL 6






LINE ARRAY MODULE

HL 35

FLYABLE SUBWOOFER

1. SAFETY PRECAUTIONS AND GENERAL INFORMATION

The symbols used in this document give notice of important operating instructions and warnings which must be strictly followed.

	CAUTION	Important operating instructions: explains hazards that could damage a product, including data loss
	WARNING	Important advice concerning the use of dangerous voltages and the potential risk of electric shock, personal injury or death.
	IMPORTANT NOTES	Helpful and relevant information about the topic
	SUPPORTS, TROLLEYS AND CARTS	Information about the use of supports, trolleys and carts. Reminds to move with extreme caution and never tilt.
	WASTE DISPOSAL	This symbol indicates that this product should not be disposed with your household waste, according to the WEEE directive (2012/19/EU) and your national law.

IMPORTANT NOTES

This manual contains important information about the correct and safe use of the device. Before connecting and using this product, please read this instruction manual carefully and keep it on hand for future reference. The manual is to be considered an integral part of this product and must accompany it when it changes ownership as a reference for correct installation and use as well as for the safety precautions. RCF S.p.A. will not assume any responsibility for the incorrect installation and / or use of this product.

SAFETY PRECAUTIONS

1. All the precautions, in particular the safety ones, must be read with special attention, as they provide important information.

2. Power supply from mains

- The mains voltage is sufficiently high to involve a risk of electrocution; install and connect this product before plugging it in.
- Before powering up, make sure that all the connections have been made correctly and the voltage of your mains corresponds to the voltage shown on the rating plate on the unit, if not, please contact your RCF dealer.
- The metallic parts of the unit are earthed through the power cable. An apparatus with CLASS I construction shall be connected to a mains socket outlet with a protective earthing connection.
- Protect the power cable from damage; make sure it is positioned in a way that it cannot be stepped on or crushed by objects.
- To prevent the risk of electric shock, never open this product: there are no parts inside that the user needs to access.
- Be careful: in the case of a product supplied by manufacturer only with POWERCON connectors and without a power cord, jointly to POWERCON connectors type NAC3FCA (power-in) and NAC3FCB (power-out), the following power cords compliant to national standard shall be used:
 - EU: cord type H05VV-F 3G 3x2.5 mm² - Standard IEC 60227-1
 - JP: cord type VCTF 3x2 mm²; 15Amp/120V~ - Standard JIS C3306
 - US: cord type SJT/SJTO 3x14 AWG; 15Amp/125V~ - Standard ANSI/UL 62

3. Make sure that no objects or liquids can get into this product, as this may cause a short circuit. This apparatus shall not be exposed to dripping or splashing. No objects filled with liquid, such as vases, shall be placed on this apparatus. No naked sources (such as lighted candles) should be placed on this apparatus.

4. Never attempt to carry out any operations, modifications or repairs that are not expressly described in this manual. Contact your authorized service centre or qualified personnel should any of the following occur:

- **The product does not function (or functions in an anomalous way).**
- **The power cable has been damaged.**

- **Objects or liquids have got in the unit.**
- **The product has been subject to a heavy impact.**

5. If this product is not used for a long period, disconnect the power cable.

6. If this product begins emitting any strange odours or smoke, switch it off immediately and disconnect the power cable.

7. Do not connect this product to any equipment or accessories not foreseen.

For suspended installation, only use the dedicated anchoring points and do not try to hang this product by using elements that are unsuitable or not specific for this purpose. Also check the suitability of the support surface to which the product is anchored (wall, ceiling, structure, etc.), and the components used for attachment (screw anchors, screws, brackets not supplied by RCF etc.), which must guarantee the security of the system / installation over time, also considering, for example, the mechanical vibrations normally generated by transducers.

To prevent the risk of falling equipment, do not stack multiple units of this product unless this possibility is specified in the user manual.

8. RCF S.p.A. strongly recommends this product is only installed by professional qualified installers (or specialised firms) who can ensure correct installation and certify it according to the regulations in force. The entire audio system must comply with the current standards and regulations regarding electrical systems.

9. Supports, trolleys and carts.



The equipment should be only used on supports, trolleys and carts, where necessary, that are recommended by the manufacturer. The equipment / support / trolley / cart assembly must be moved with extreme caution. Sudden stops, excessive pushing force and uneven floors may cause the assembly to overturn. Never tilt the assembly.

10. There are numerous mechanical and electrical factors to be considered when installing a professional audio system (in addition to those which are strictly acoustic, such as sound pressure, angles of coverage, frequency response, etc.).

11. Hearing loss.

Exposure to high sound levels can cause permanent hearing loss. The acoustic pressure level that leads to hearing loss is different from person to person and depends on the duration of exposure. To prevent potentially dangerous exposure to high levels of acoustic pressure, anyone who is exposed to these levels should use adequate protection devices. When a transducer capable of producing high sound levels is being used, it is therefore necessary to wear ear plugs or protective earphones. See the manual technical specifications to know the maximum sound pressure level.

OPERATING PRECAUTIONS

- Place this product far from any heat sources and always ensure an adequate air circulation around it.
- Do not overload this product for a long time.
- Never force the control elements (keys, knobs, etc.).
- Do not use solvents, alcohol, benzene or other volatile substances for cleaning the external parts of this product.

IMPORTANT NOTES

To prevent the occurrence of noise on line signal cables, use screened cables only and avoid putting them close to:

- **Equipment that produces high-intensity electromagnetic fields**
- **Power cables**
- **Loudspeaker lines**



WARNING! CAUTION! To prevent the risk of fire or electric shock, never expose this product to rain or humidity.



WARNING! To prevent electric shock hazard, do not connect to mains power supply while grille is removed



WARNING! to reduce the risk of electric shock, do not disassemble this product unless you are qualified. Refer servicing to qualified service personnel.

CORRECT DISPOSAL OF THIS PRODUCT



This product should be handed over to an authorized collection site for recycling waste electrical and electronic equipment (EEE). Improper handling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the effective usage of natural resources. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, waste authority or your household waste disposal service.

CARE AND MAINTENANCE

To ensure a long-life service, this product should be used following these advices:

- If the product is intended to be set up outdoors, be sure it is under cover and protected to rain and moisture.
 - If the product needs to be used in a cold environment, slowly warm up the voice coils by sending a low-level signal for about 15 minutes before sending high-power signals.
 - Always use a dry cloth to clean the exterior surfaces of the speaker and always do it when the power is turned off.
-



CAUTION: to avoid damaging the exterior finishes do not use cleaning solvents or abrasives.



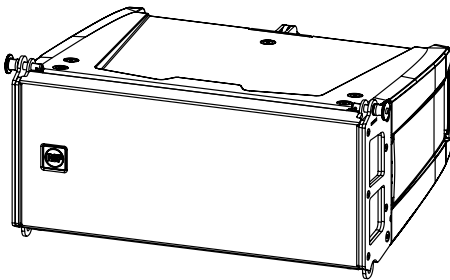
WARNING! CAUTION! For powered speakers, do cleaning only when the power is turned off.

RCF S.p.A. reserves the right to make changes without prior notice to rectify any errors and / or omissions.

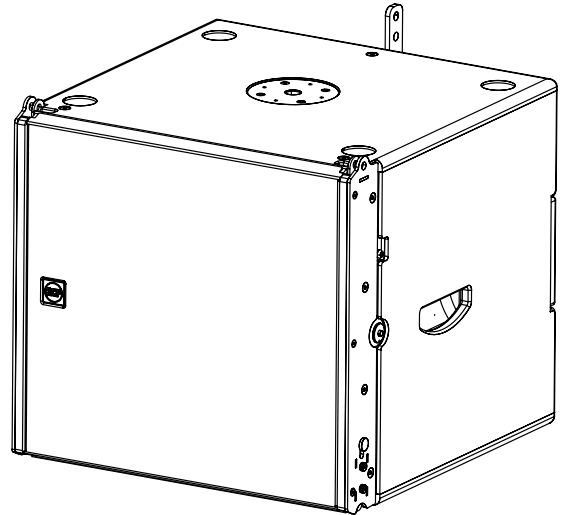
Always refer to the latest version of the manual on www.rcf.it.

HL 6 - LINE ARRAY MODULE

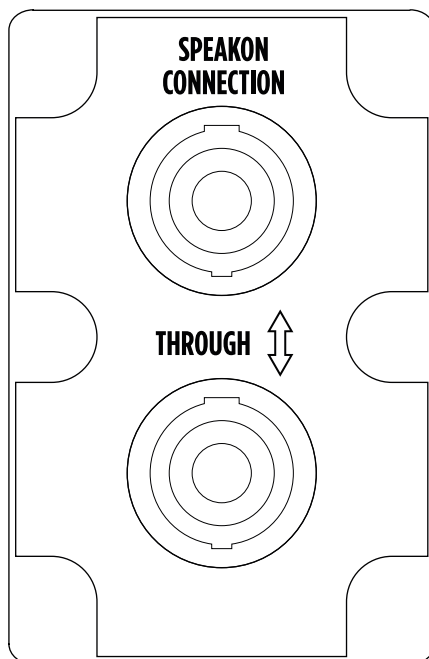
HL 6 is two-way full range system, ideal when line array performance is needed, and a fast and easy set-up is a must. The concept of this speaker derives from the touring industry, bringing in a compact cabinet all the experience of RCF professional sound. HL 6 features state-of-the-art RCF transducers, two powerful 6.0" woofers for a solid bass reproduction, plus a high powered 1.75" voice coil compression driver mounted on a precise 100° x 10° waveguide to deliver vocal clarity with high definition and incredible dynamic. Due to its symmetrical design the HL 6 produces constant coverage without break up or attenuation, maintaining intelligibility, definition, and signal strength over distance. HL 6 comes in a structurally wooden reinforced composite polypropylene enclosure, and it is equipped with two rear handles for portability.

**HL 6**

65 Hz ÷ 20000 Hz
2 x 6.0" Neo Woofers
1.75" neo Compression Driver
131 dB Max SPL

**HL 35**

40 Hz ÷ 140 Hz
15" Neo Woofer
134 dB Max SPL



Both HL 6 and HL 35-S rear panels display 2 sockets, both for 'Neutrik Speakon NL4' (4-pole) plugs:

One of the two sockets (indifferently) receives the signal; the other one becomes the "THROUGH" socket and be used to link another speaker.



WARNING! CAUTION! Loudspeaker connections should be only made by qualified and experienced personnel having the technical know-how or enough specific instructions (to ensure that connections are made correctly) in order to prevent any electrical danger.

To prevent any risk of electric shock, do not connect loudspeakers when the amplifier is switched on.

Before turning the system on, check all connections and make sure there are no accidental short circuits.

The entire sound system shall be designed and installed in compliance with the current local laws and regulations regarding electrical systems.

4. RIGGING THE SYSTEM

RCF has developed a complete procedure to set up and hang a line array system starting from software data, enclosures, rigging, accessories, cables, until the final installation.



WARNING! CAUTION! GENERAL RIGGING WARNINGS AND SAFETY PRECAUTIONS:

- Suspending loads should be done with extreme caution
- When deploying a system always wear protective helmets and footwear
- Never allow people to pass under the system during the installation process
- Never leave the system unattended during the installation process
- Never install the system over areas of public access
- Never attach other loads to the array system
- Never climb the system during or after the installation
- Never expose the system to extra loads created from the wind or snow



WARNING! CAUTION!

The system must be rigged in accordance with the laws and regulations of the Country where the system is used.

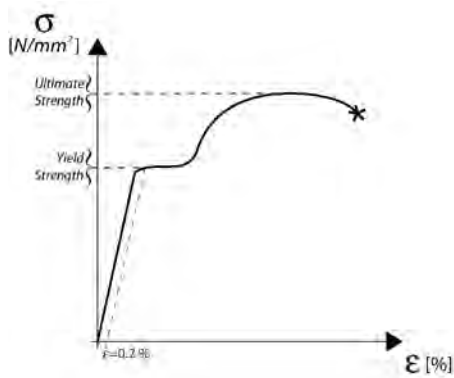
It is responsibility of the owner or rigger to make sure the system is properly rigged in accordance with Country and local laws and regulations.

Always check that all the parts of the rigging system that are not provided from RCF are:

- Appropriate for the application
- Approved, certified and marked
- Properly rated
- In perfect condition
- Each cabinet support the full load of the part of the system below. It is very important that each single cabinet of the system is properly checked

RCF SHAPE DESIGNER SOFTWARE AND SAFETY FACTOR

The suspension system is designed to have a proper safety factor (configuration dependent). Using the “RCF Easy Shape Designer” software it is very easy to understand safety factors and limits for each specific configuration. To better comprehend in which safety range the mechanics are working a simple introduction is needed: HL 6 arrays’ mechanics are built with certified UNI EN 10025 Steel. RCF prediction software calculates forces on every single stressed part of the assembly and shows the minimum safety factor for every link. Structural steel has a stress-strain (or equivalent Force-Deformation) curve as in the following:

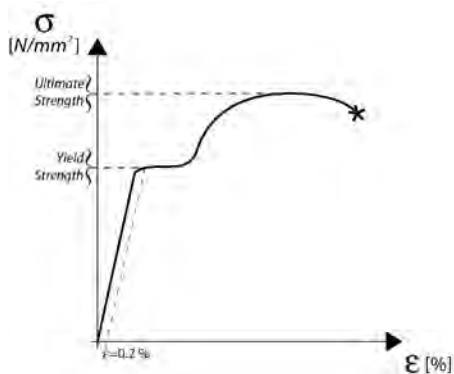


The curve is characterized by two critical points: the **Break Point** and the **Yield Point**. The tensile ultimate stress is simply the maximum stress attained. Ultimate tensile stress is commonly used as a criterion of the strength of the material for structural design, but it should be recognized that other strength properties may often be more important. One of these is certainly the Yield Strength. Stress-strain diagram of structural steel exhibit a sharp break at a stress below the ultimate strength. At this critical stress, the material elongates considerably with no apparent change in stress. The stress at which this occurs is referred to as the Yield Point. Permanent deformation may be detrimental, and the industry adopted 0.2% plastic strain as an arbitrary limit that is considered acceptable by all regulatory agencies. For tension and compression, the corresponding stress at this offset strain is defined as the yield.

In our prediction software the **Safety Factors** are calculated considering the **Maximum Stress Limit** equal to the **Yield Strength**, according with many international standards and rules.

The resulting Safety Factor is the minimum of all the calculated safety factors, for each link or pin.

This is where you are working with a **SF=7**



Depending on local safety regulations and on the situation, the required safety factor can vary. It is responsibility of the owner or rigger to make sure that the system is properly rigged in accordance with Country and local laws and regulations.

The “RCF Shape Designer” software gives detailed information of the safety factor for each specific configuration.

The results are classified in four classes:

GREEN	SAFETY FACTOR	> 7	SUGGESTED
YELLOW	4 >	SAFETY FACTOR	> 7
ORANGE	1.5 >	SAFETY FACTOR	> 4
RED	SAFETY FACTOR	> 1.5	NEVER ADMITTED

4. RIGGING THE SYSTEM



WARNING! CAUTION!

The safety factor is the result of the forces acting on fly bar's and system's front and rear links and pins and depends on many variables:

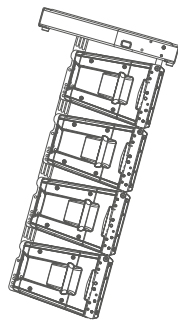
- number of cabinets
- fly bar angles
- angles from cabinets to cabinets.

If one of the cited variables changes, the safety factor **MUST BE** recalculated using the software before rigging the system.

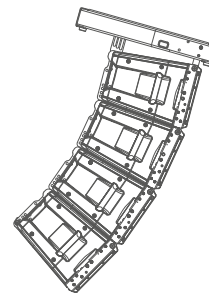
In case the fly bar is picked up from 2 motors, make sure the fly bar angle is correct. An angle different from the angle used in the prediction software can be potentially dangerous.

Never allow persons to stay or pass under the system during the installation process.

When the fly bar is particularly tilted or the array is very curved, the centre of gravity can move out from the rear links. In this case the front links are in compression and the rear links are supporting the total weight of the system plus the front compression. Always check very carefully with the "RCF Easy Shape Designer" software all this kind of situations (even with a small number of cabinets).



System particularly tilted



System very curved

PREDICTION SOFTWARE – SHAPE DESIGNER

RCF Easy Shape Designer is a temporary software, useful for the setup of the array, for mechanics and for proper preset suggestions. The optimal setting of a loudspeaker array cannot ignore the basics of acoustics and the awareness that many factors contribute to a sonic result that matches expectations. RCF provides the user with simple instruments that help the setting of the system in an easy and reliable way.

This software will soon be replaced by a more complete software for multiple arrays and complex venue simulation with maps and graphs of the results. RCF recommends this software to be used for each type of line array configuration.

SOFTWARE INSTALLATION

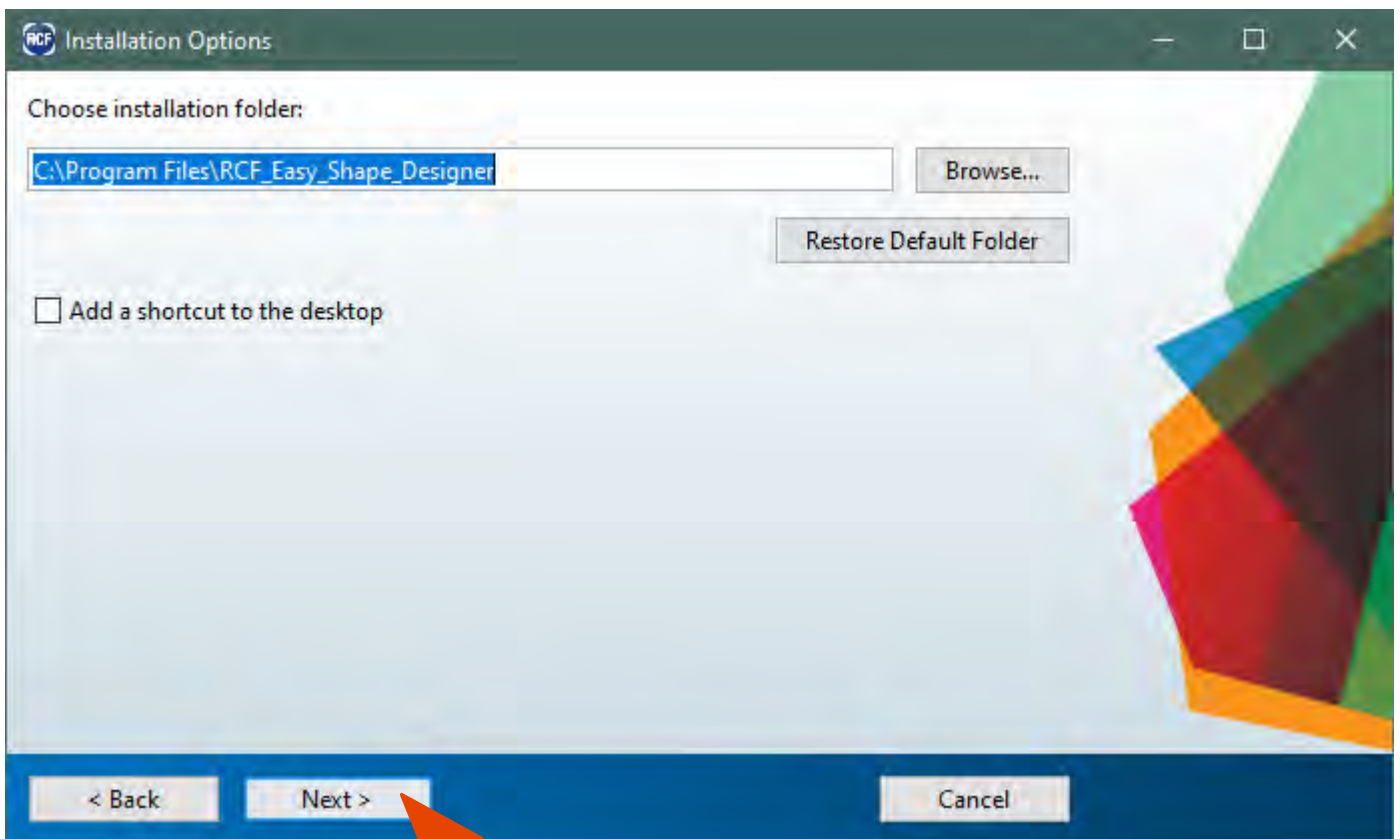
The software was developed with Matlab 2015b and requires Matlab programming libraries. At the very first installation user should refer to the installation package, available from the RCF website, containing the Matlab Runtime (ver. 9) or the installation package that will download the Runtime from the web. Once the libraries are correctly installed, for all the following version of the software the user can directly download the application without the Runtime. Two versions, 32-bit and 64-bit, are available for the download.



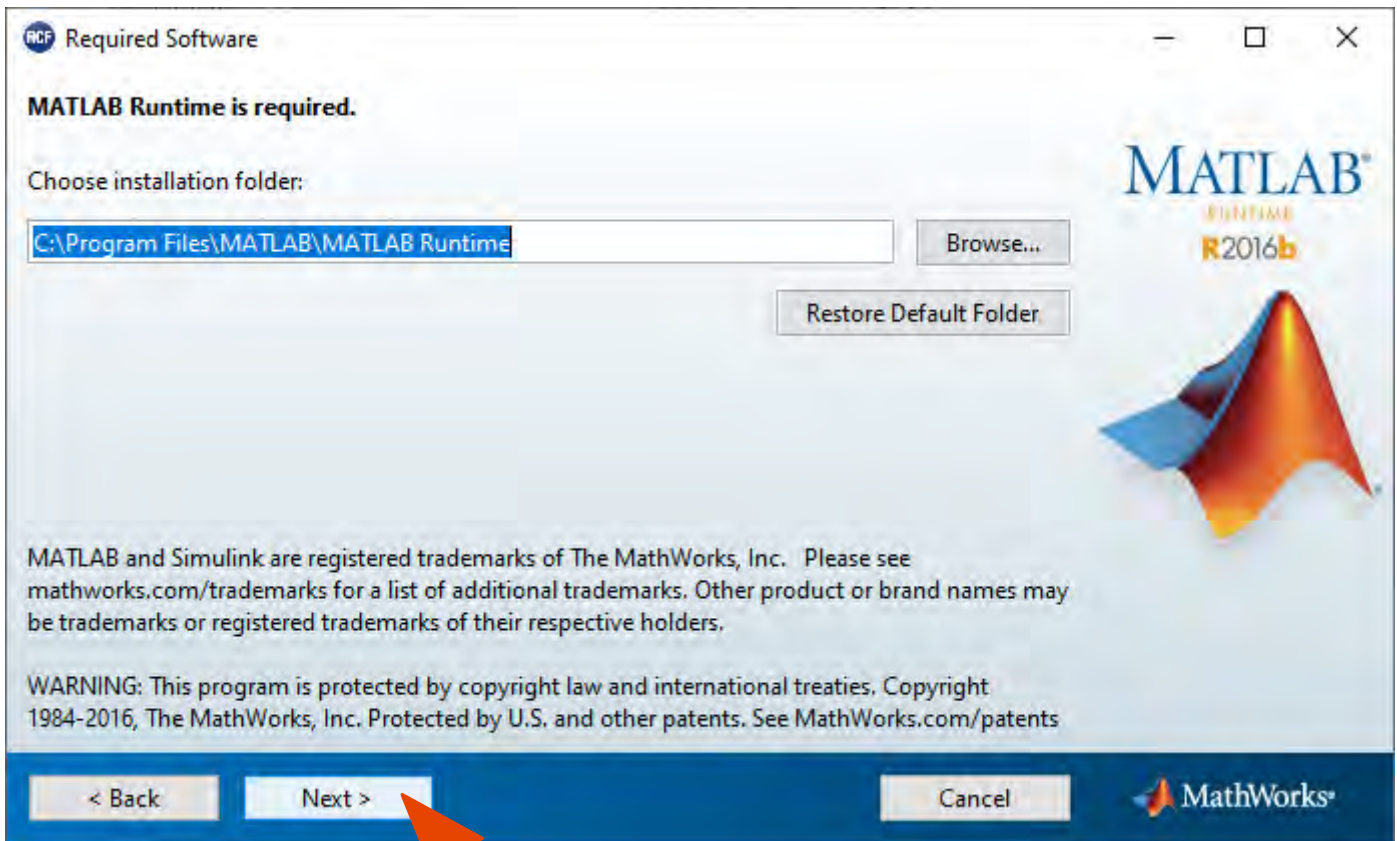
IMPORTANT: Matlab no longer supports Windows XP and hence RCF EASY Shape Designer (32 bit) doesn't work with this OS version.

4. RIGGING THE SYSTEM

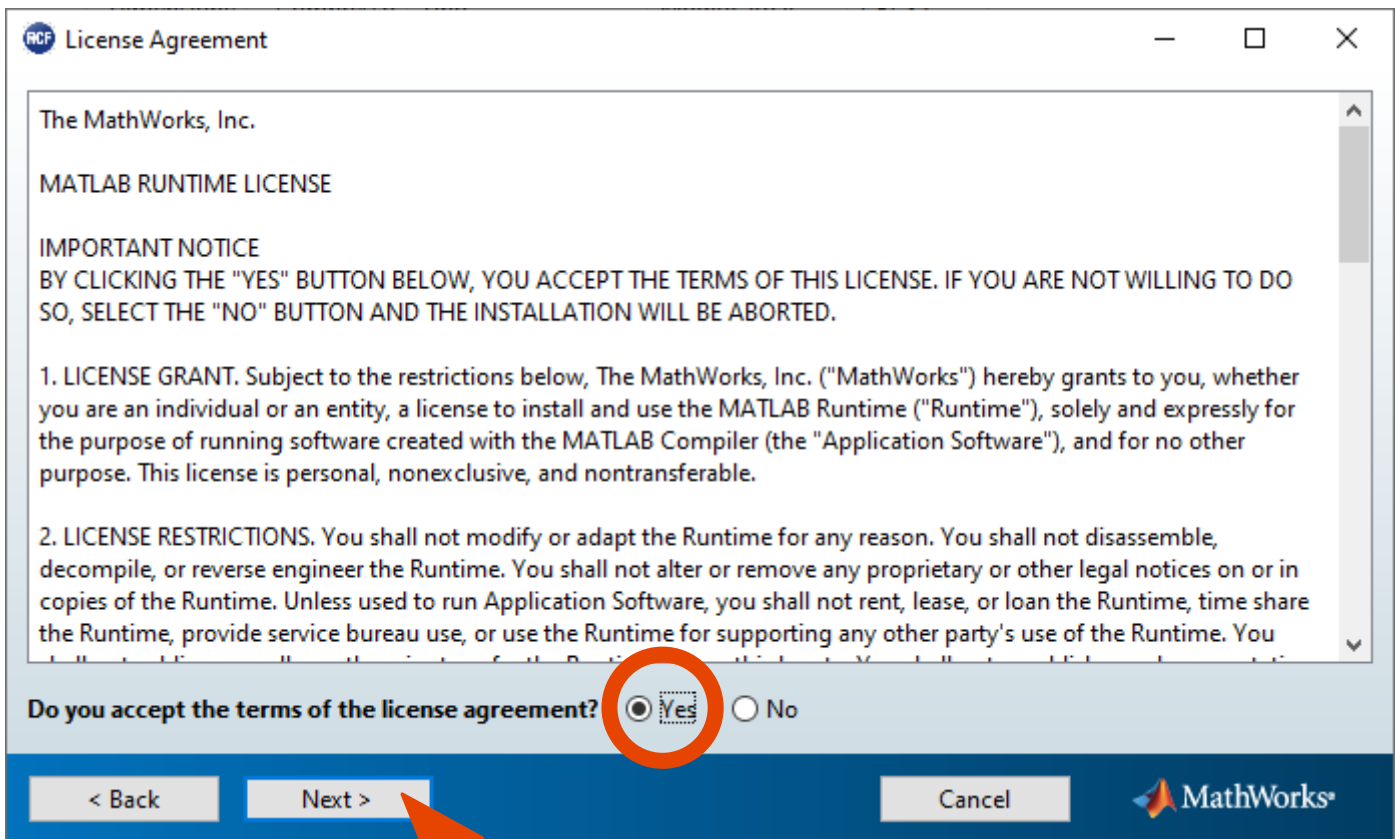
You may wait a few seconds after the double click on the installer because the software checks if Matlab Libraries are available. After this step the installation begins. Double-click the last installer (check for the last release in the download section of our website) and follow the next steps.

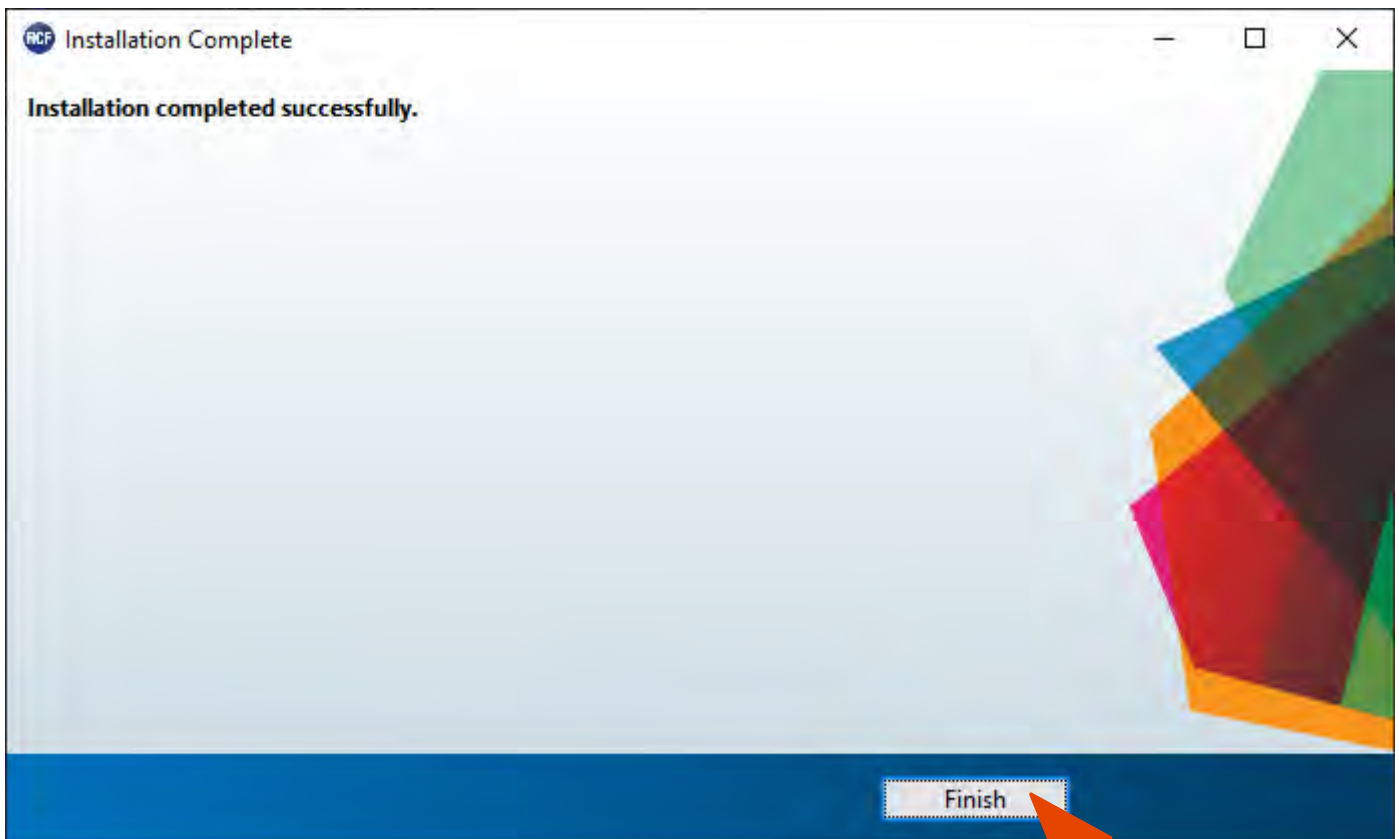
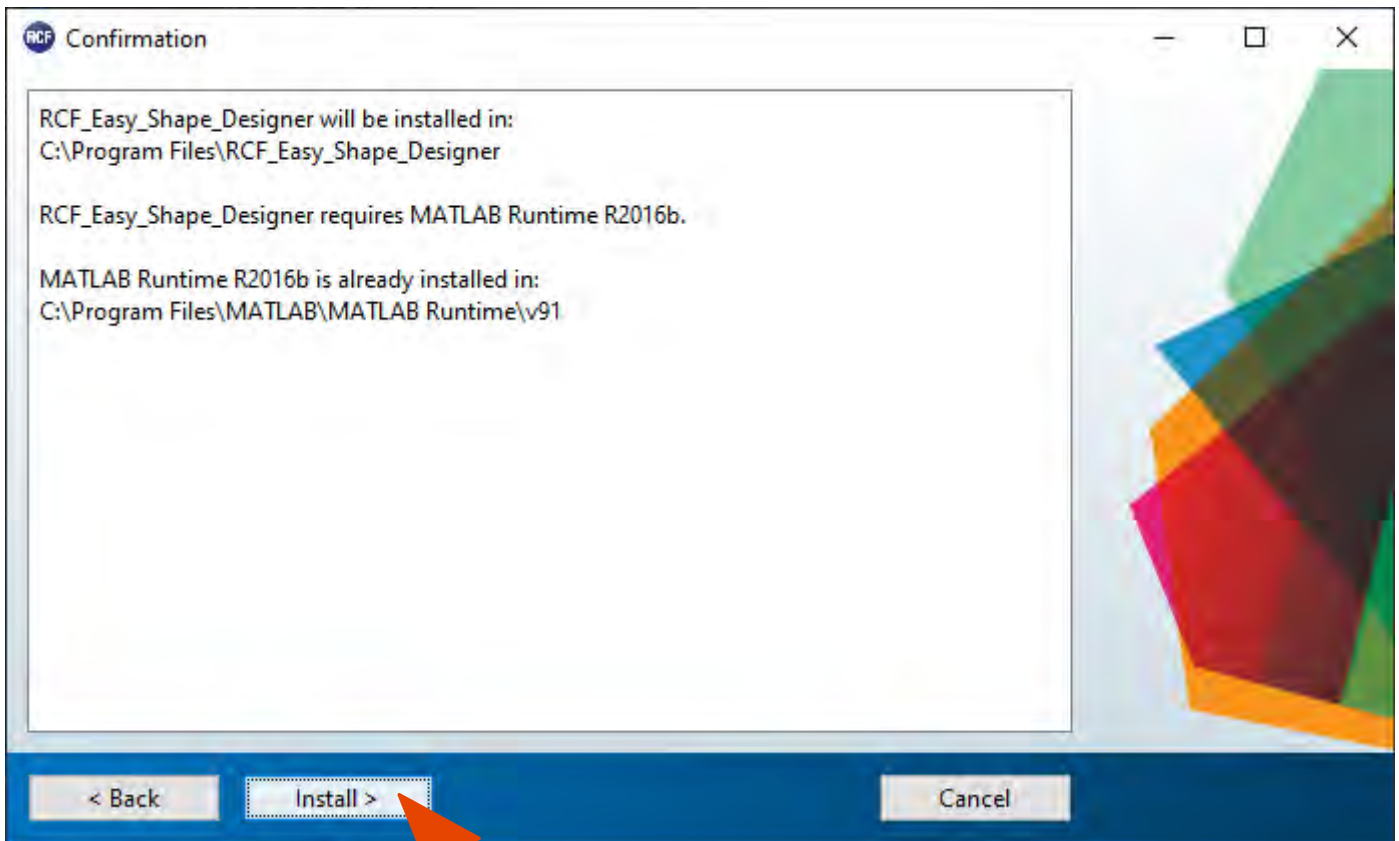


4. RIGGING THE SYSTEM



After the choice of folders for the Shape Designer software (Figure 2) and Matlab Libraries Runtime the installer takes a couple of minutes for the installation procedure.



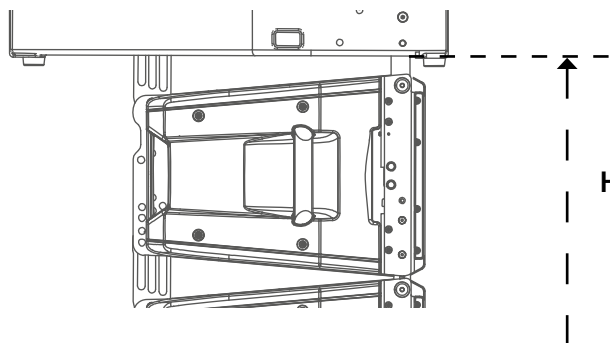


4. RIGGING THE SYSTEM

DESIGNING THE SYSTEM

The RCF Easy Shape Designer software is divided into two macro sections: the left part of the interface is dedicated to project variables and data (size of audiences to cover, height, number of modules, etc.), the right part shows the processing results. At first the user should introduce the audience data choosing the proper pop-up menu depending on the size of the audience and introducing the geometrical data. It is also possible to define the height of the listener.

The second step is the array definition selecting the number of cabinets in the array, the hanging height, the number of hanging points and the kind of available flybars. When selecting two hanging points consider those points positioned at the flybar extremes. The height of the array should be considered referred to the bottom side of the flybar, as shown in the picture below.



After entering all the data input in the left part of the user interface, by pressing the AUTOSPLAY button the software will perform:

- Hanging point for the shackle with A or B position indicated if a single pickup point is selected, rear and front load if two pickup points are selected.
- Flybar tilt angle and cabinet splays (angles that we have to set to each cabinet before lifting operations).
- Inclination that each cabinet will take (in case of one pick up point) or will have to take if we were to tilt the cluster with the use of two engines. (two pick up points).
- Total load and Safety Factor calculation: if the selected setup doesn't give Safety Factor > 1.5 the text message shows in red color the failure to meet the minimum conditions of mechanical safety.

The autosplay algorithm was developed for optimum coverage of the audience size. The use of this function is recommended for the optimization of the array aiming. A recursive algorithm chooses for every cabinet the best angle available in the mechanics.

The screenshot shows the HDL6ShapeDesigner_v1 software interface. The window title is "HDL6ShapeDesigner_v1" and the menu bar includes "Setup", "Print", and "About". The interface is divided into several sections:

- VENUE:** A table with columns for Audience Type, X, and Y coordinates.

	x	y
min Audience 1 [m]	5	0
max Audience 1 [m]	30	0
Listener Height [m]	1.7	
min Audience 2 [m]	35	2.5
max Audience 2 [m]	60	6
Listener Height [m]	1.7	
- ARRAY:** Configuration parameters for the speaker array.

N. of HDL12-AS	0
N. of HDL6-A	8
Height [m] *	8
N. of pickup points	1
Flybar type	Standard

* from the ground to the bottom side of the flybar
- RESULTS:** Summary of calculated values.

FLYBAR [°]	-0.1
HDL12-AS	--
HDL12-AS	--
HDL12-AS	--
HDL12-AS	--
SPLAY	0
TILT	-0.1
SPK 1	1
SPK 2	3
SPK 3	4
SPK 4	5
SPK 5	7
SPK 6	10
SPK 7	10
SPK 8	--
SPK 9	--
SPK 10	--
SPK 11	--
SPK 12	--
SPK 13	--
SPK 14	--
SPK 15	--
SPK 16	--

Total Load [Kg]: 101
Flybar Configuration: A
Hanging Points: 14-15A
Front Pick Load [Kg]: --
Rear Pick Load [Kg]: --
Last speaker Dist. above ground [m]: 6.09
SAFETY FACTOR: 15.4 OK
- Graph:** A 2D plot showing the audience area (dashed lines) and listener position (solid line). The x-axis ranges from 0 to 150, and the y-axis ranges from 0 to 40. A red arrow points to the "AUTOSPLAY" button.

RECOMMENDED WORKFLOW

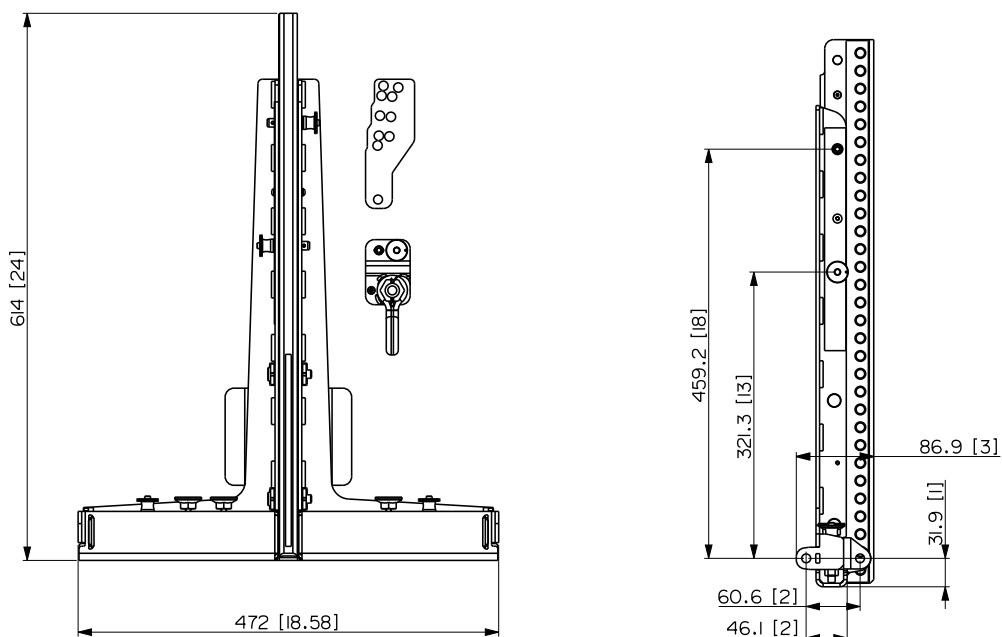
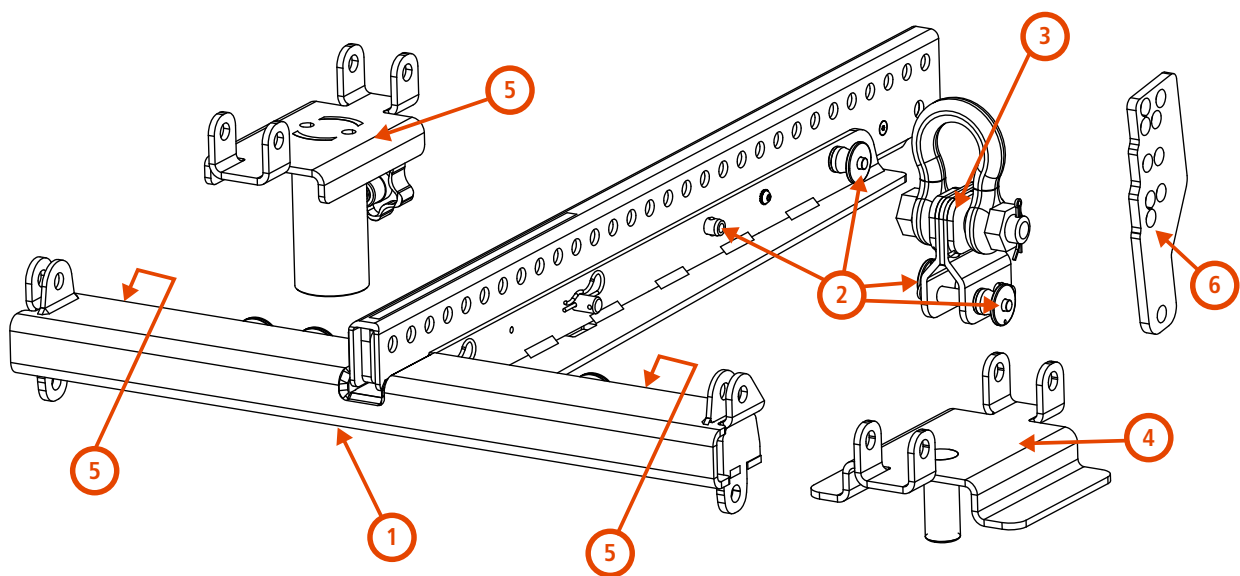
Pending the official and definitive simulation software, RCF recommends the use of HL 6 Shape Designer together with Ease Focus 3. Because of the need of interaction between different software, the recommended workflow assumes the following steps for every array in the final project:

- Shape Designer: audience and array setup. Calculation in "autoplay" mode of flybar tilt, cabinet and splays.
- Focus 3: reports here the angles, tilt of flybar and presets generated by Shape Designer.
- Shape Designer: manual modify of splay angles if the simulation in Focus 3 does not give satisfactory results in order to check the safety factor.
- Focus 3: reports here the new angles and tilt of flybar generated by Shape Designer. Repeat the procedure until good results are achieved.

5. INSTALLATION

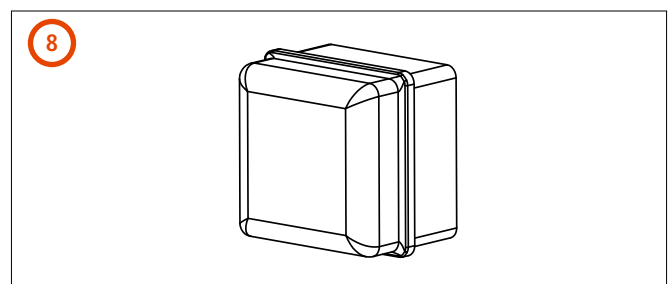
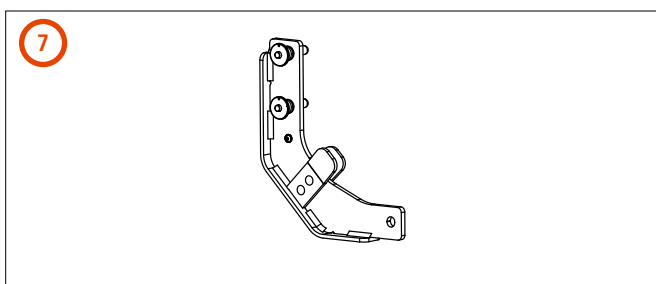
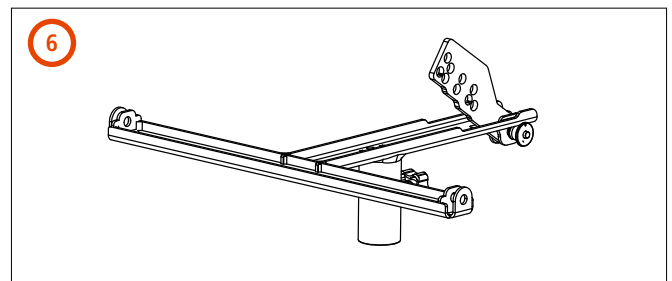
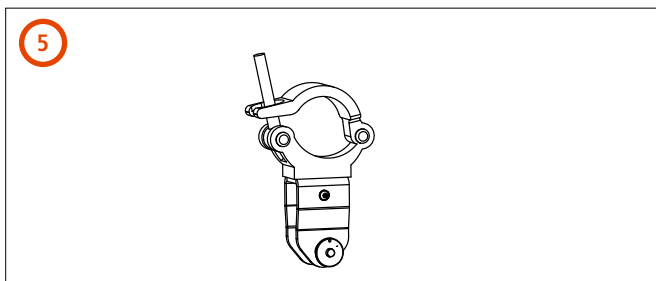
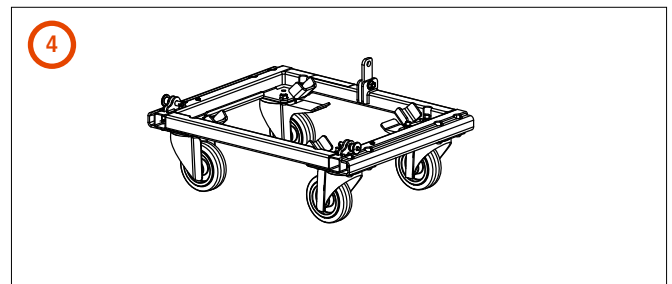
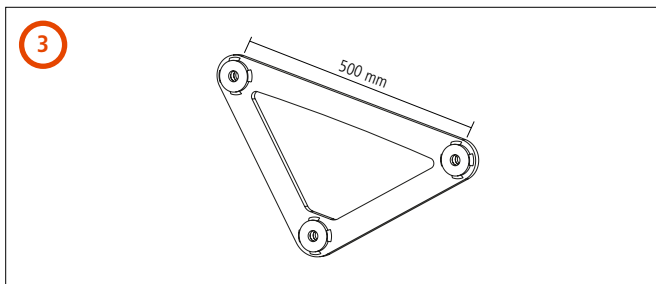
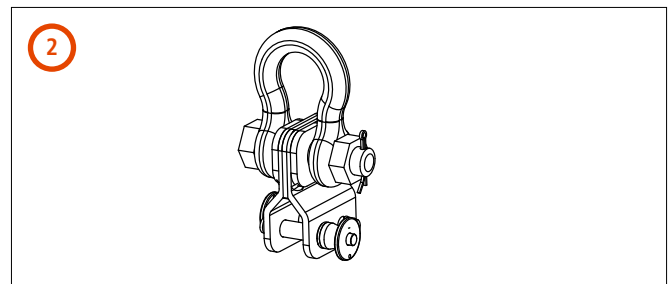
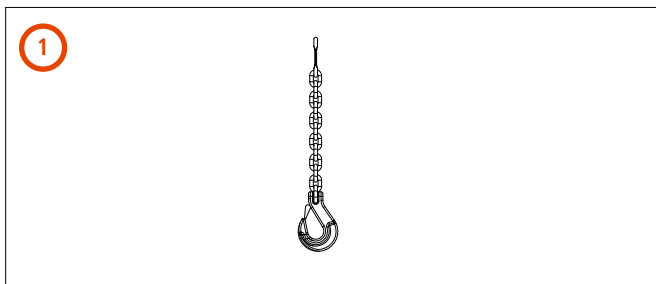
RIGGING COMPONENTS

	Accessory p/n	Description
1	13360360	BARRA SOSPENSIONE HDL6-A E HDL12-AS - up to 16 HDL6-A - up to 8 HDL12-AS - up to 4 HDL12-AS + 8 HDL6-A
2	13360022	QUICK LOCK PIN
3	13360372	FLY BAR PICK UP HDL6-A
4		CONNECTION BRACKET FOR SECURELY LOCKING THE STACKING CLUSTER ON A SUBWOOFER
5		POLE MOUNT BRACKET



ACCESSORIES

1	13360129	HOIST SPACING CHAIN. It allows enough space for the hang of most 2 motor chain containers and avoids any impact on the vertical balance of the array when it is suspended from a single pick-up point.
2	13360372	FLY BAR PICK UP HDL6-A + 2 QUICK LOCK PIN (SPARE PART P/N 13360022)
3	13360351	AC 2X AZIMUT PLATE. It allows the horizontal aim control of the cluster. The system must be hooked with 3 motors. 1 frontal and 2 attached to the azimuth plate.
4	13360366	KART WITH WHEELS AC KART HDL6 + 2 QUICK LOCK PIN (SPARE PART 13360219)
5	13360371	AC TRUSS CLAMP HDL6 + 1 QUICK LOCK PIN (SPARE PART P/N 13360022)
6	13360377	POLE MOUNT 3X HDL 6-A + 1 QUICK LOCK PIN (SPARE PART 13360219)
7	13360375	LINKBAR HDL12 TO HDL6 + 2 QUICK LOCK PIN (SPARE PART 13360219)
8	13360381	RAIN COVER 06-01

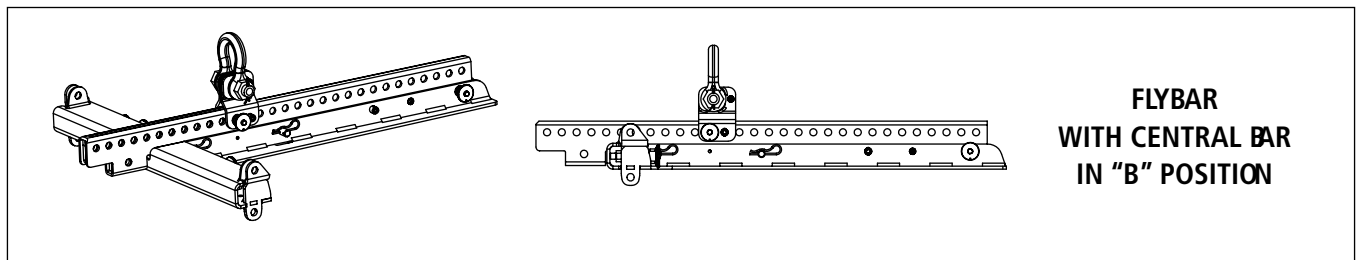
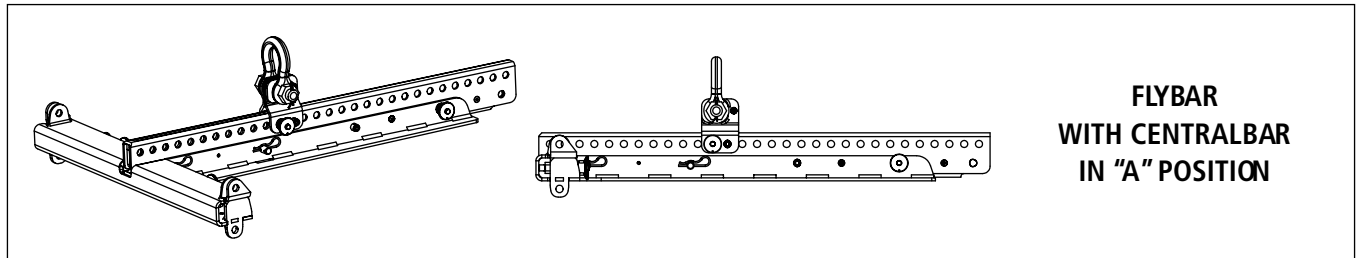


5. INSTALLATION

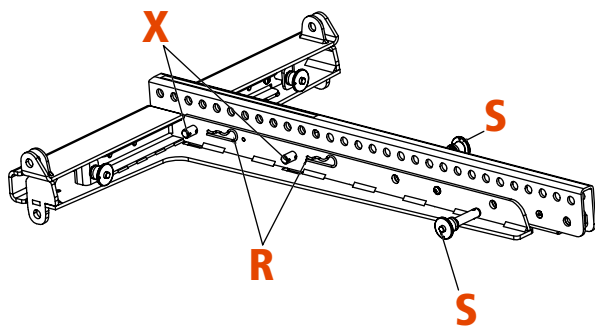
4.1 - FLYBAR SETUP

The HL 6 flybar allows to set the central bar in two different configurations "A" e "B".

This accessory is provided in "A" configuration. "B" configuration allows a better upper inclination of the cluster.

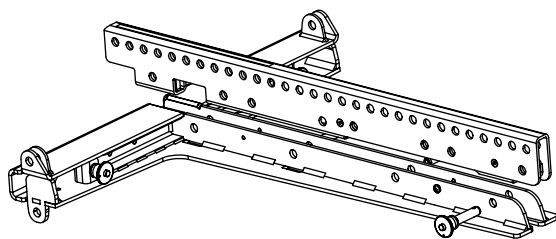


HOW TO SET THE CENTRAL BAR IN "B" CONFIGURATION

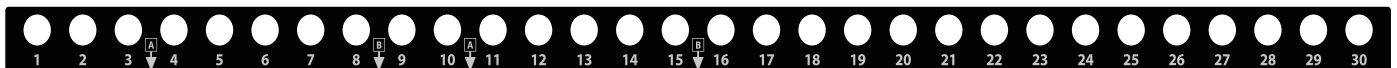


To set it in "B" configuration:

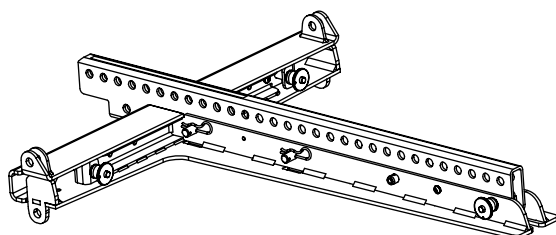
1. Remove the cotter pins "R", pull out the linchpins "X" and the quick lock pins "S"



2. Lift the central bar then re-position it making the "B" indication on the label and the holes "S" match together.



CENTRAL BRACKET LABEL



3. Re-assemble the flybar repositioning the pins "S", the linchpins "X" and the cotter pins "R".



PICK UP POINT
"A" POSITION

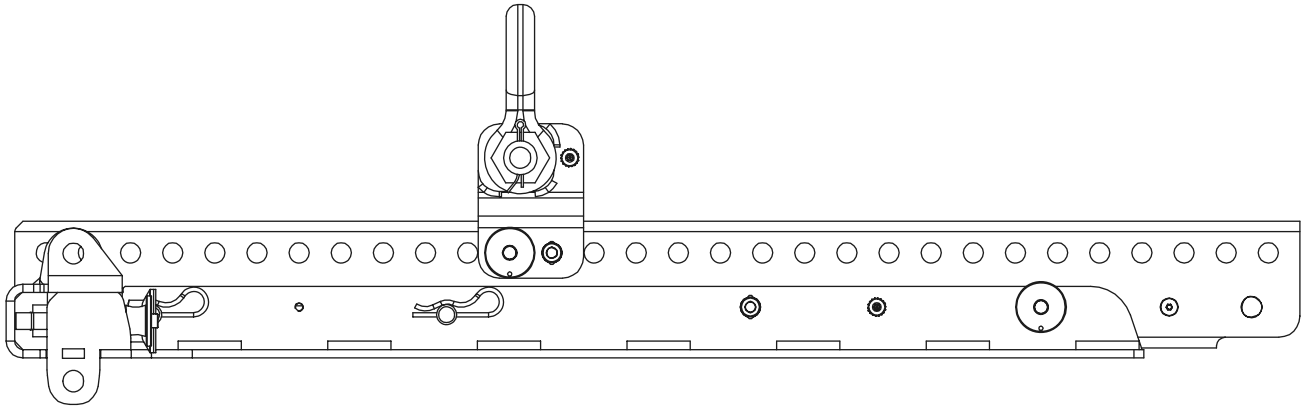


PICK UP POINT
"B" POSITION

4.2 - SYSTEM SUSPENSION PROCEDURE

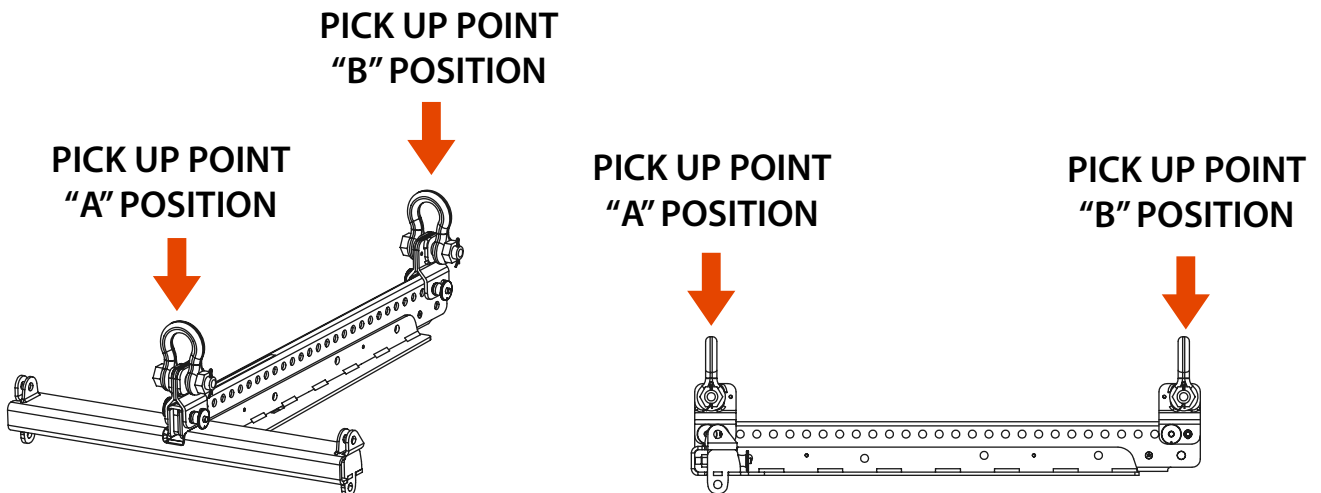
SINGLE PICK UP POINT

Position the flybar pick-up point as shown in the software, respecting the position "A" or "B".



DUAL PICK UP POINT

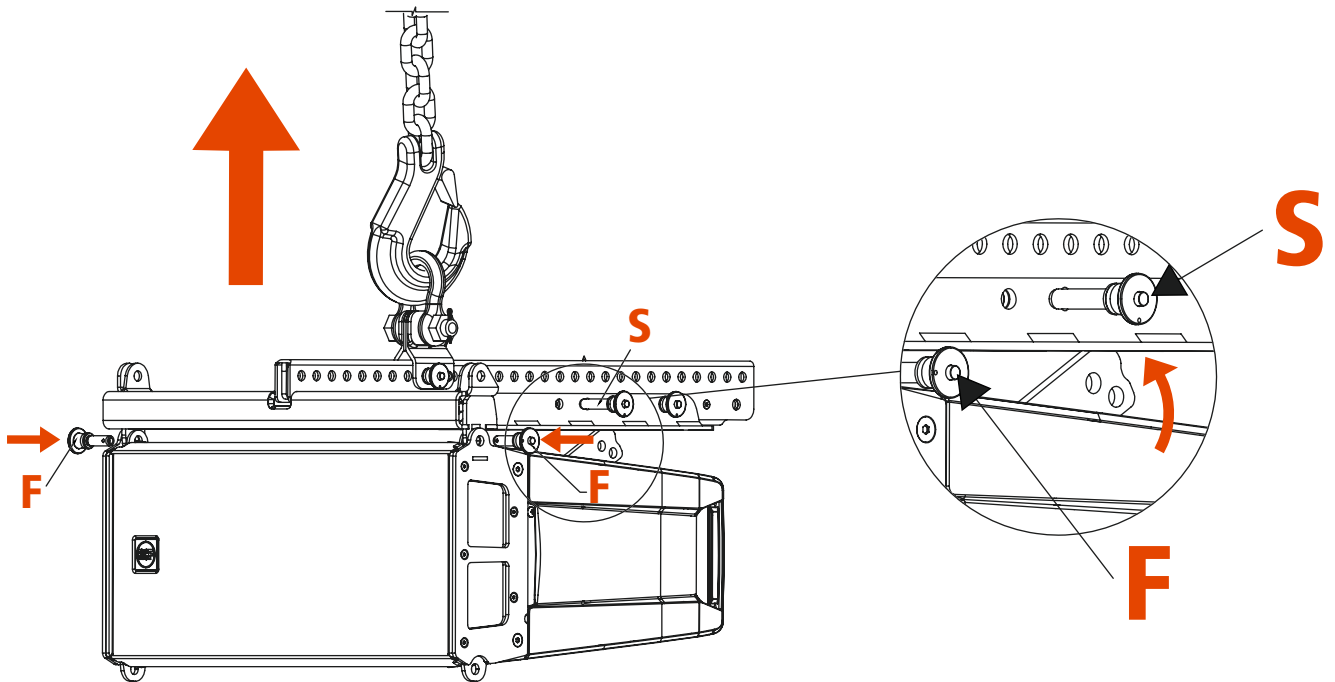
Allows to lift the cluster with two pulleys adding an optional pick up point.



5. INSTALLATION

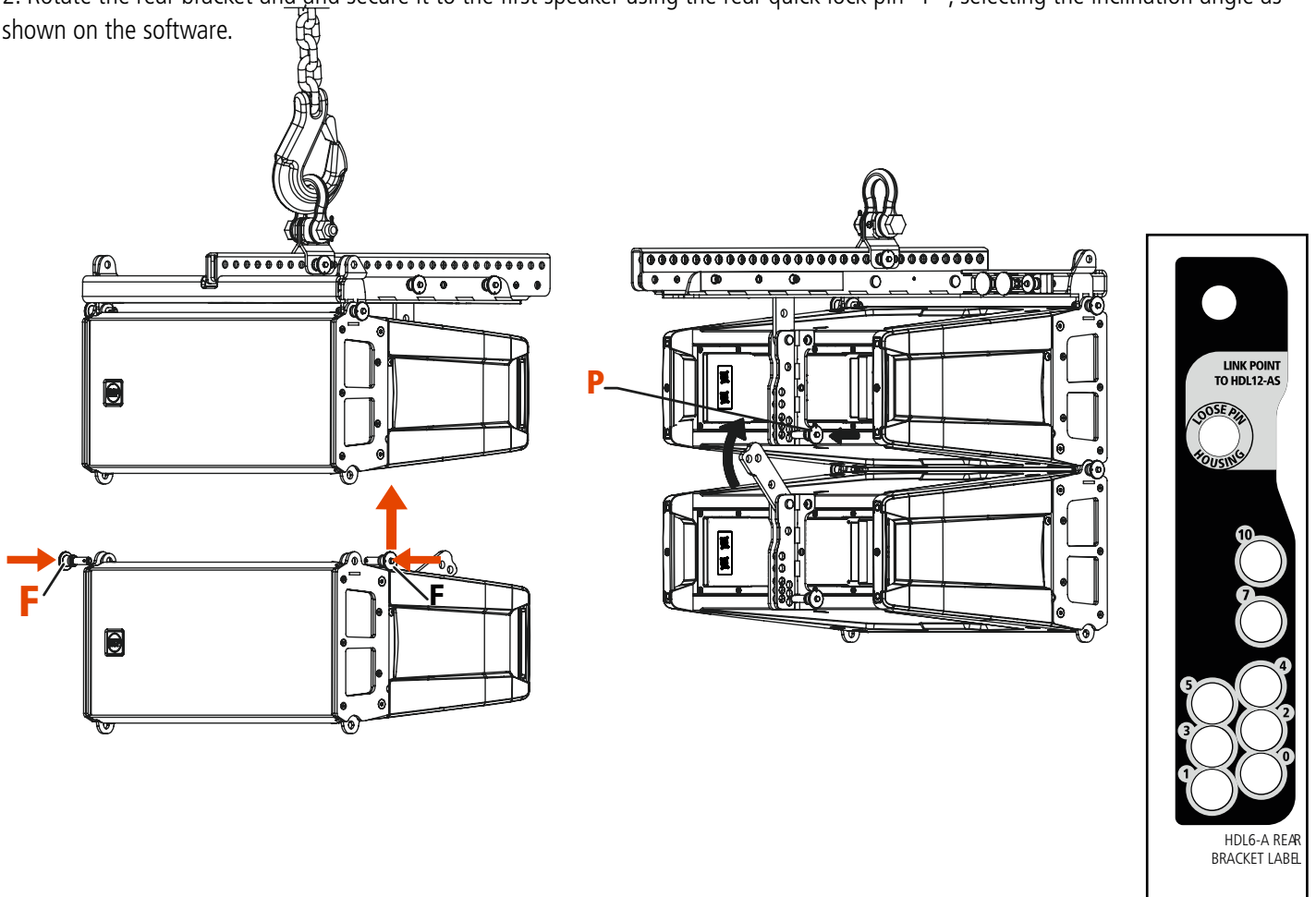
4.2.1 - SECURING THE FLYBAR TO THE FIRST HL 6 SPEAKER

1. Insert the frontal quick lock pins "F"
2. Rotate the rear bracket and secure it to the flybar with the rear quick lock pin "S" to the HL 6 Link Point hole



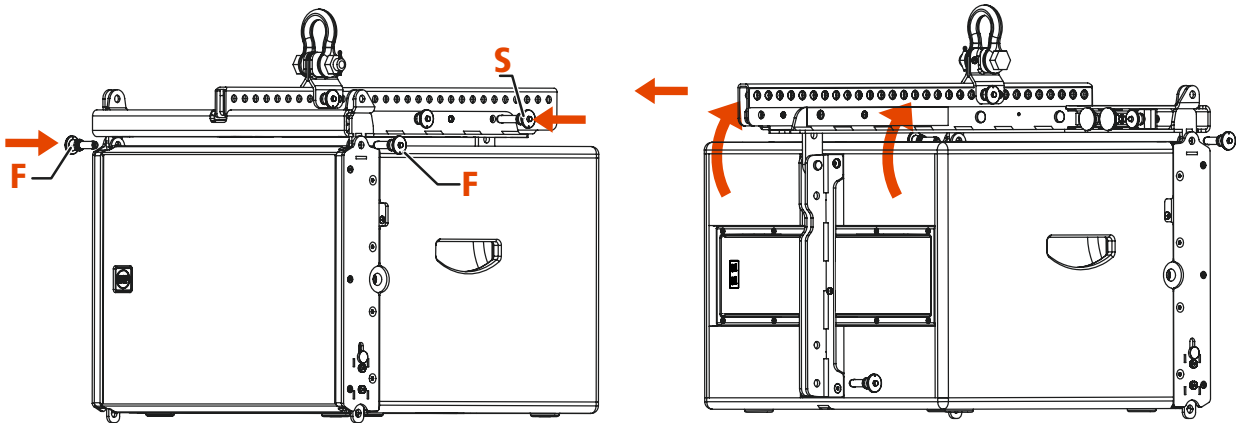
4.2.2 - SECURING THE SECOND HL 6 SPEAKER TO THE FIRST (AND CONSECUTIVE)

1. Secure the frontal quick lock pins "F"
2. Rotate the rear bracket and secure it to the first speaker using the rear quick lock pin "P", selecting the inclination angle as shown on the software.



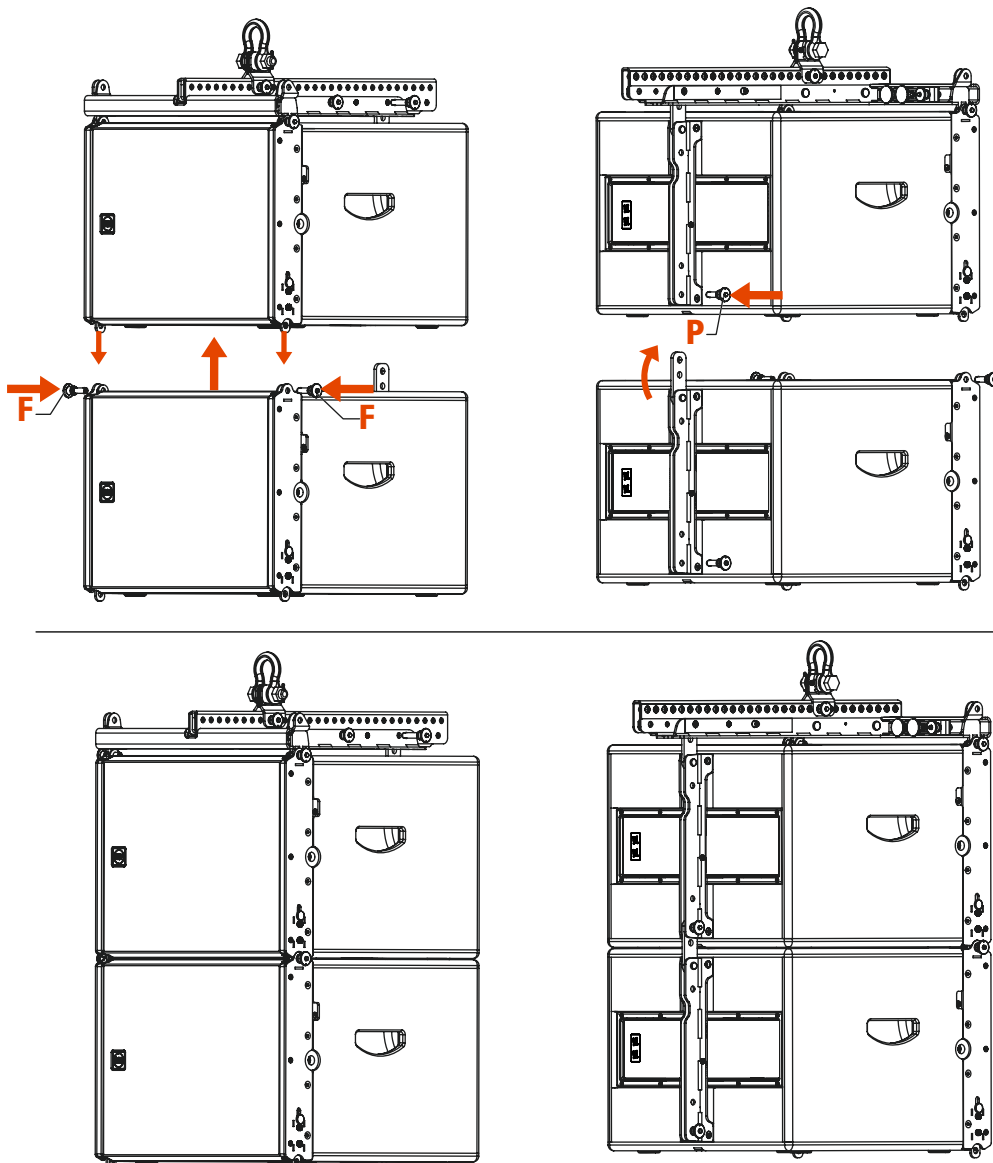
4.2.3 - SECURING THE FLYBAR TO THE FIRST HL 35-S SPEAKER

1. Insert the frontal quick lock pins "F"
2. Rotate the rear bracket and secure it to the flybar with the rear quick lock pin "S" on the HL 35-S Link Point hole.



4.2.4 - SECURING THE SECOND HL 35-S SPEAKER TO THE FIRST (AND CONSECUTIVE)

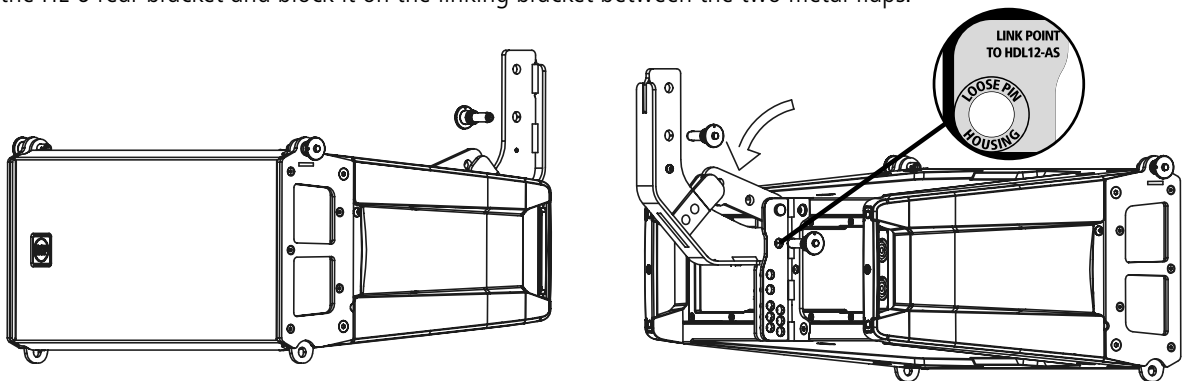
1. Pull out the frontal bracket "A"
2. Secure the frontal quick lock pins "F"
3. Rotate the rear bracket and secure it to the first speaker using the rear quick lock pin "P".



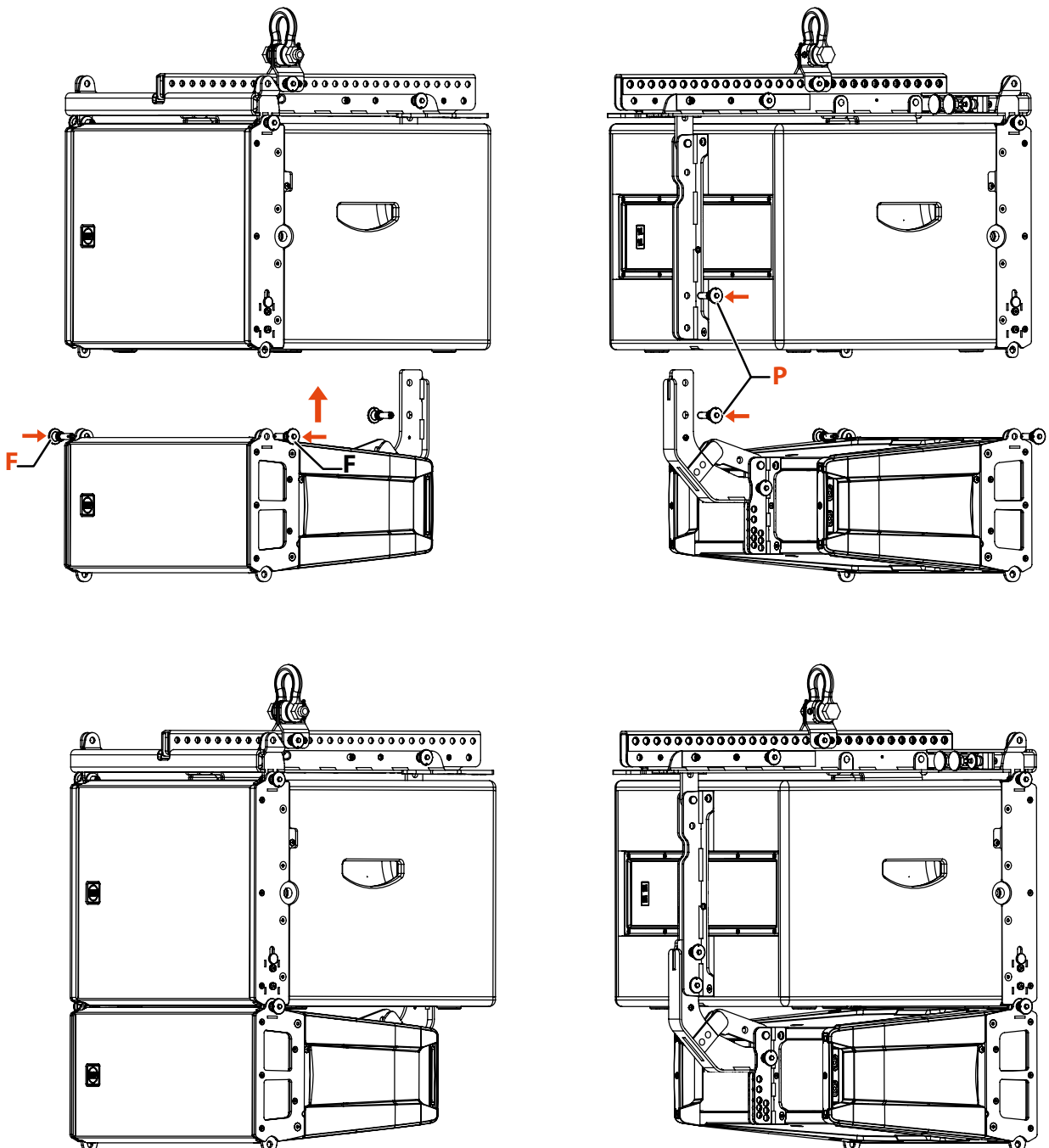
5. INSTALLATION

4.2.5 - CLUSTER HL 35-S + HL 6

1. Using the quick lock pin "P", secure the linking bracket to the HL 6 speaker on the "Link point to HL 35-S" hole, on the rear bracket.
2. Rotate the HL 6 rear bracket and block it on the linking bracket between the two metal flaps.

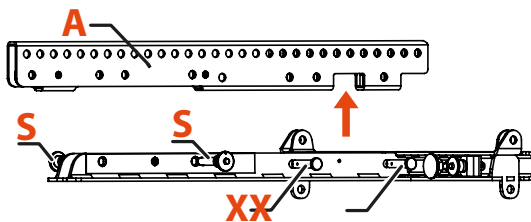


1. Secure HL 6 to HL 35-S using the frontal quick lock pins "F" and the rear ones "P".



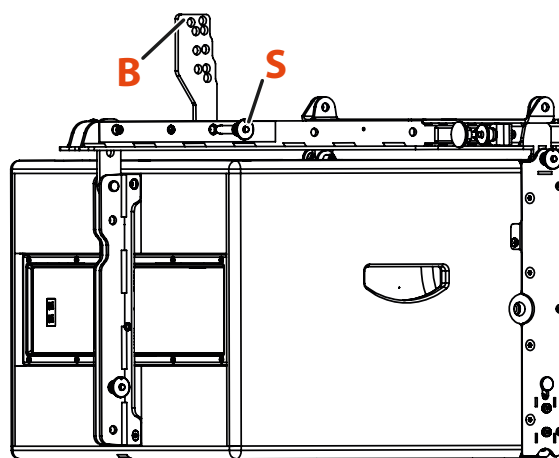
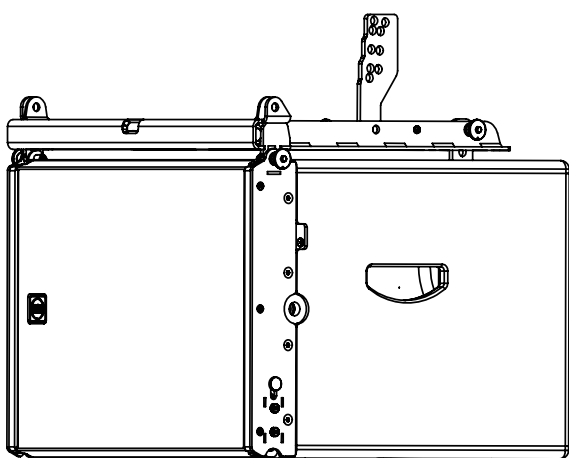
4.3 - STACKING PROCEDURE

Remove the central bar "A" from the flybar by pulling out the linchpins "X" and the quick lock pins "S".

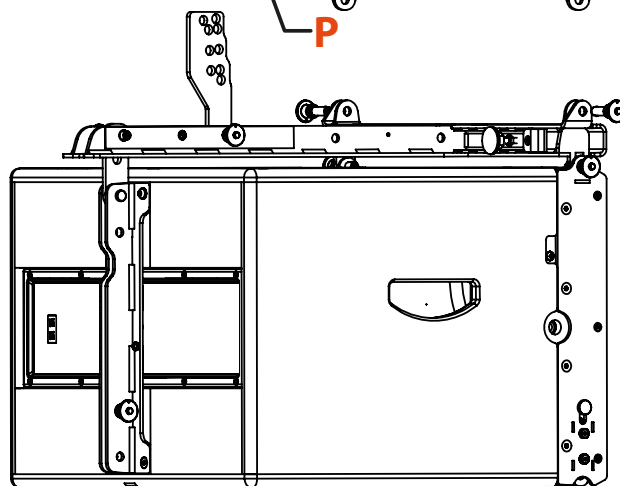
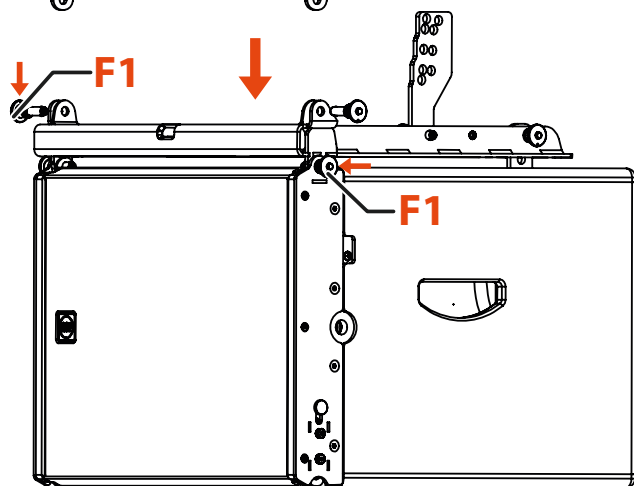
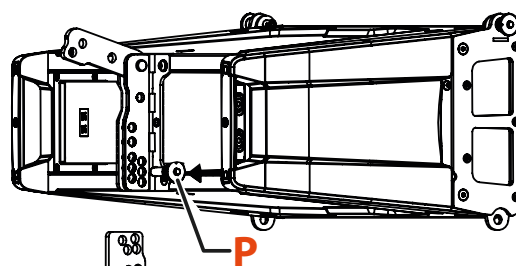
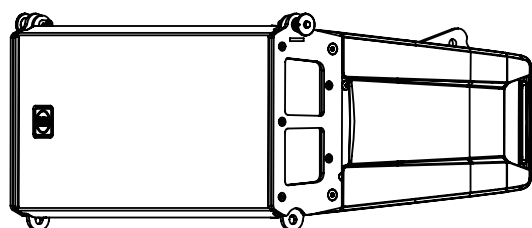


4.3.1 - STACKING ON SUB HL 35-S

Remove the central bar "A" from the flybar by pulling out the linchpins "X" and the quick lock pins "S".



1. Secure the flybar to HL 35-S
2. Secure the stacking bar "B" (as shown in the picture) to the flybar using the quick lock pin "S" (follow the indication "stacking point")



1. Secure HL 6 to the flybar using the frontal quick lock pins "F1".

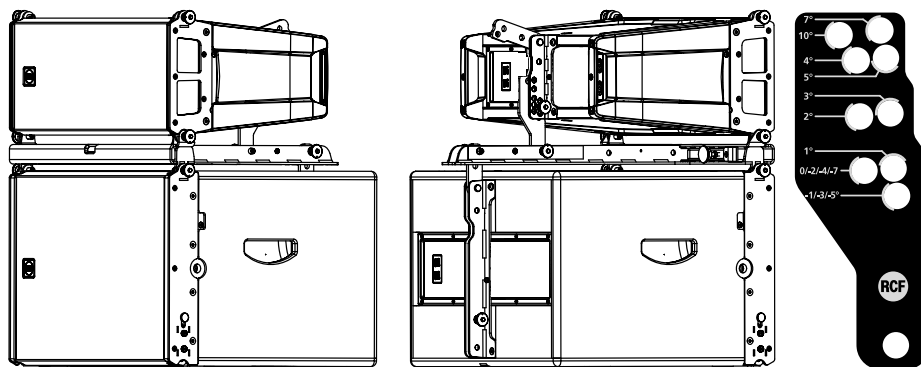
5. INSTALLATION

2. Select the inclination angle (positive angles indicate a lower inclination of the speaker) and secure it with the rear quick lock pin "P".

To obtain the speaker inclination (positive or negative) you need to match the stacking bar angle value with the same angle value stated on the speaker rear bracket.

This method works for every inclination except for angles 10 and 7 of the stacking bar, for which you need to proceed in the following way:

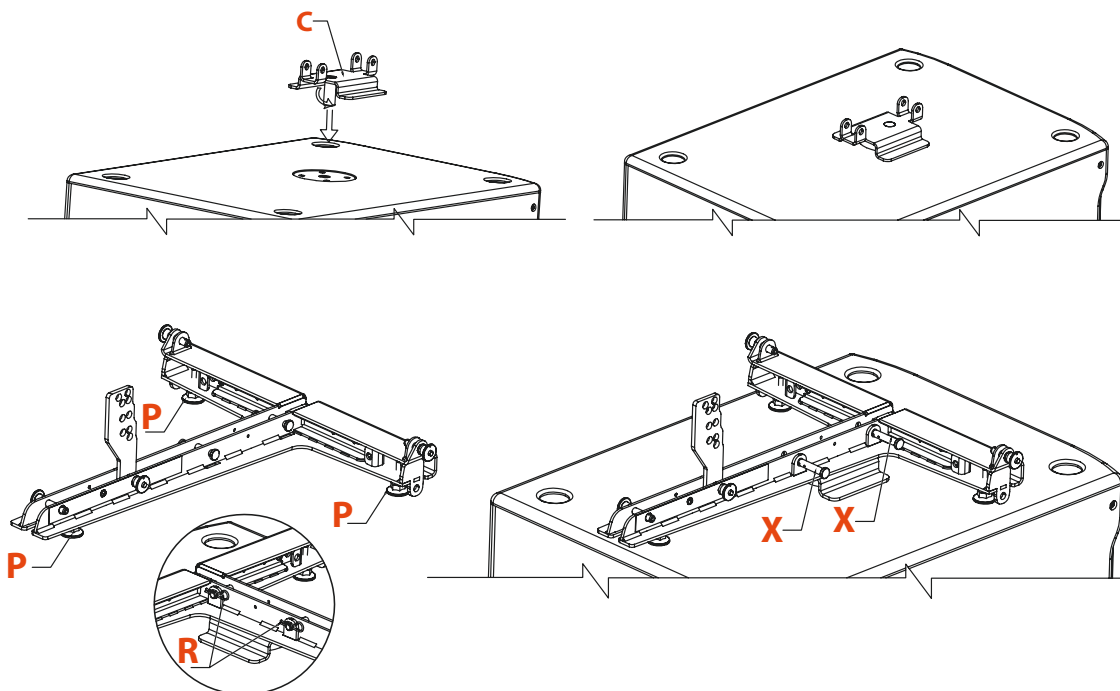
- angle 10 of the stacking bar needs to be matched with angle 0 on the speaker rear bracket.
- angle 7 of the stacking bar needs to be matched with angle 5 on the speaker rear bracket.



WARNING! Always verify the system solidity in every configuration.

4.3.2 - STACKING ON DIFFERENT SUBWOOFERS (OTHER THAN HL 35-S)

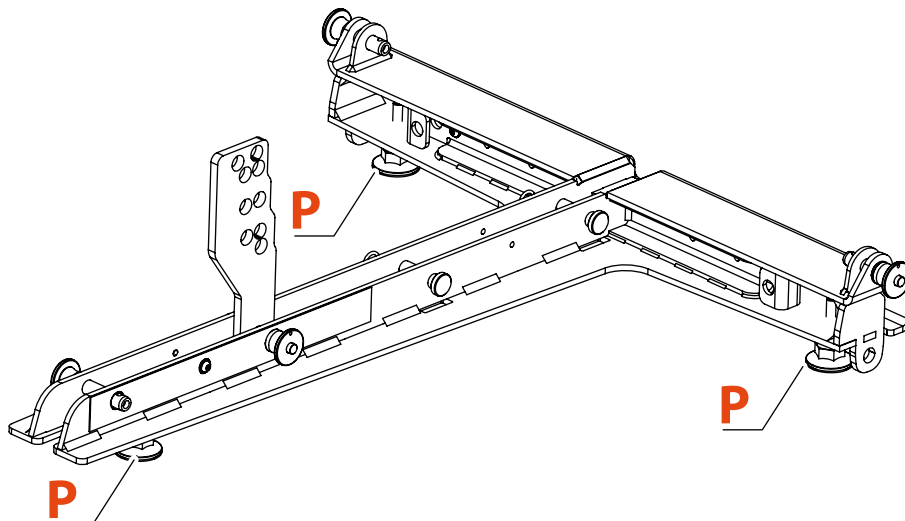
1. Screw all three plastic feet "P".
2. Secure the flybar to the safety bracket using the linchpins "X" and block them with the cotter pins "R".
3. Adjust the feet to stabilize the flybar on the subwoofer then block them with their nuts to avoid unscrewing.
4. Assemble the HL 6 speaker with the same procedure.



WARNING! Always verify the system solidity in every configuration.

4.3.3 - GROUND STACKING

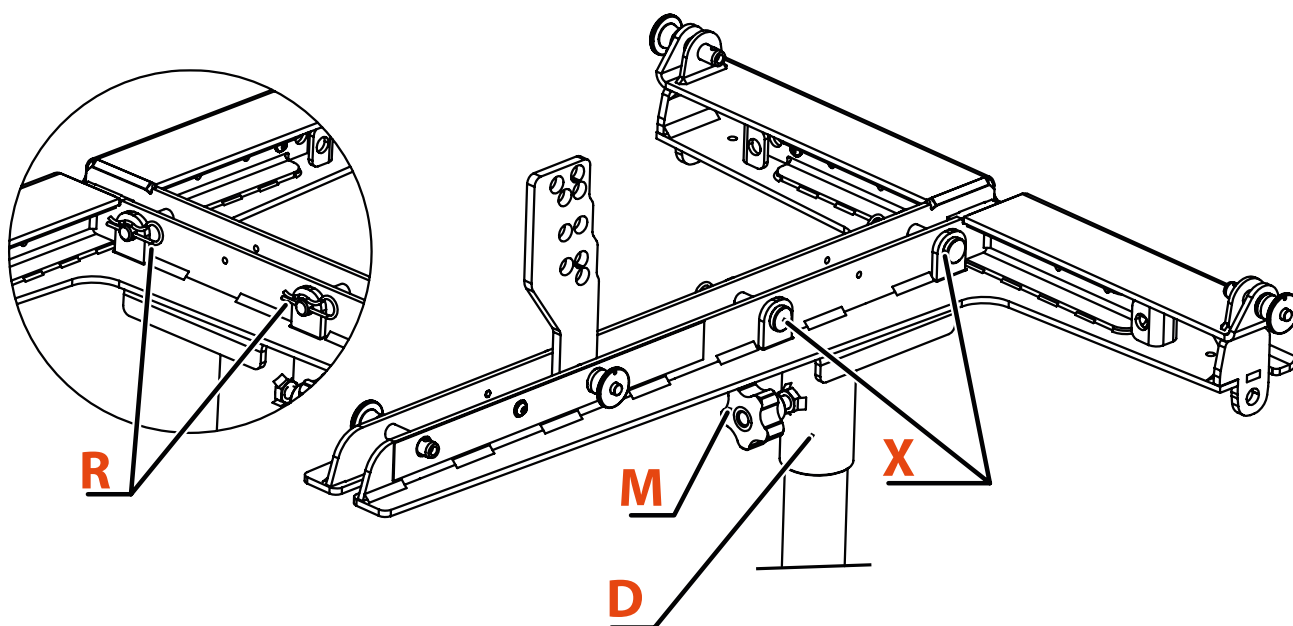
1. Screw all three plastic feet "P".
2. Adjust the feet to stabilize the flybar on the subwoofer then block them with their nuts to avoid unscrewing.
3. Assemble the HL 6 speaker with the same procedure.



WARNING! Always verify the system solidity in every configuration.

4.3.3 - POLE MOUNTING WITH SUSPENSION BAR

1. Secure the pole mount bracket to the flybar with the linchpins "X" then block them with the cotter pins "R".
2. Block the flybar to the pole by screwing the knob "M".
3. Assemble the HL 6 speaker with the same procedure.

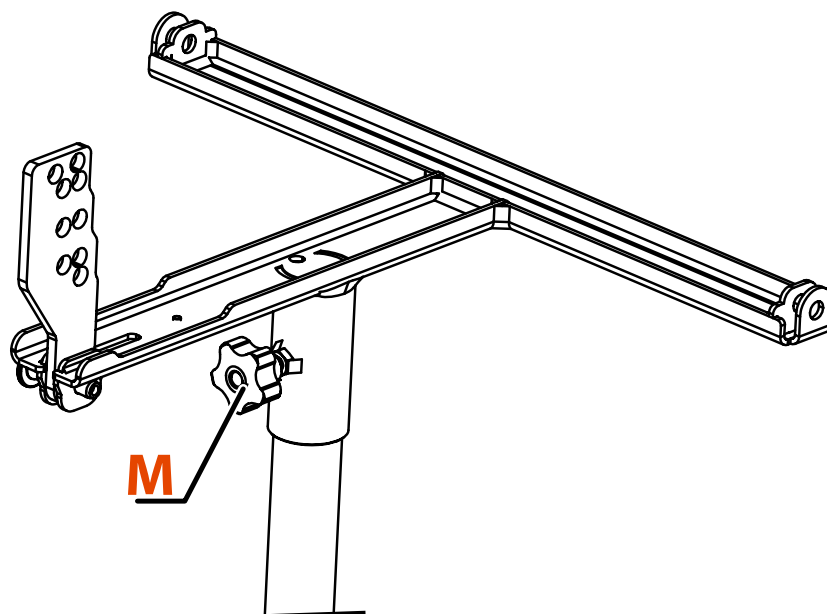


WARNING! Always verify the system solidity in every configuration and the pole payload.

5. INSTALLATION

4.3.4 - POLE MOUNTING WITH POLE MOUNT 3X HL 6

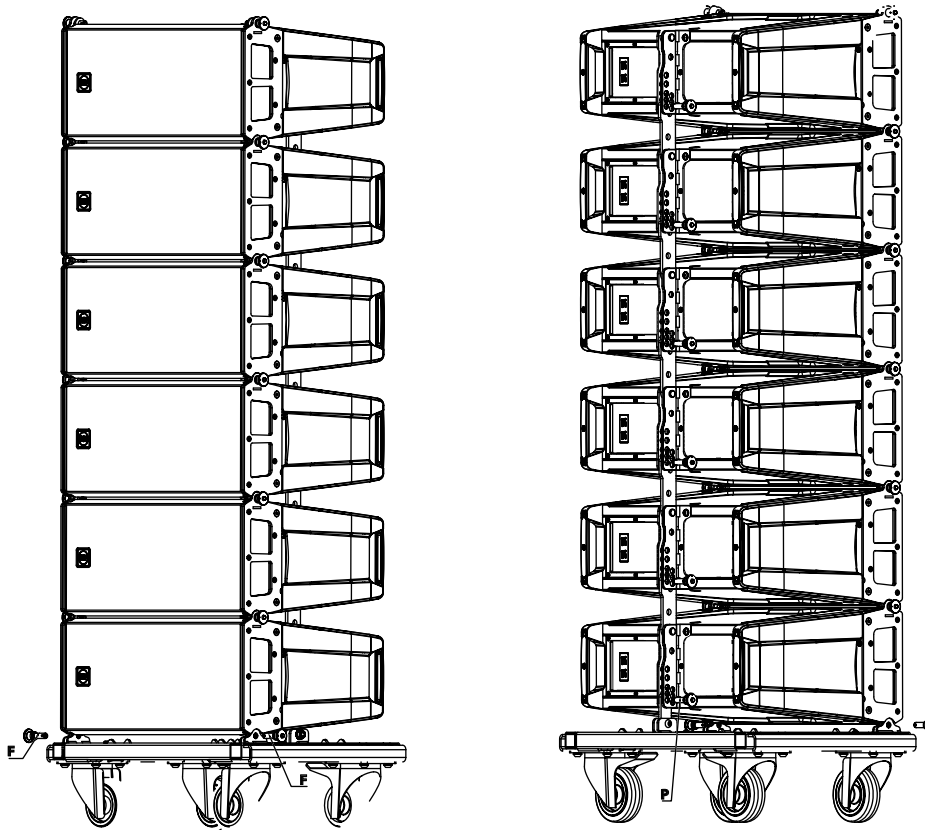
1. Secure the flybar on the pole by screwing the knob "M"
2. Assemble the speakers HL 6 with the same procedure used on stacking on sub HL 35-S





WARNING! Always verify the system solidity in every configuration and the pole payload.



POSITIONING THE SPEAKERS ON THE KART

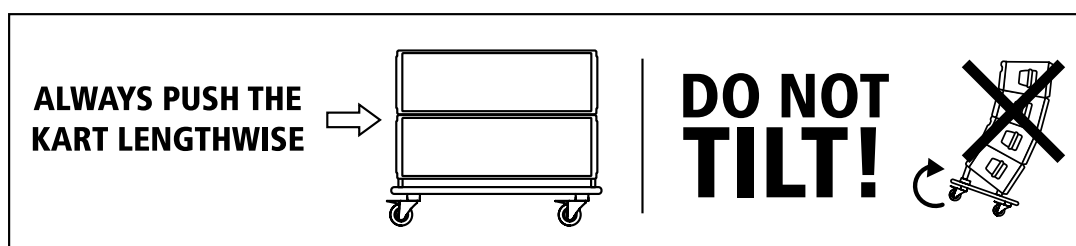
1. Secure the front side of the speaker to the kart using the quick lock pins "F".
 2. Secure the rear side of the speaker to the kart using the quick lock pins "P".
- Careful: the hole to be used is 0° on the speaker rear bracket.
3. Proceed with the second speaker repeating steps "1" and "2"



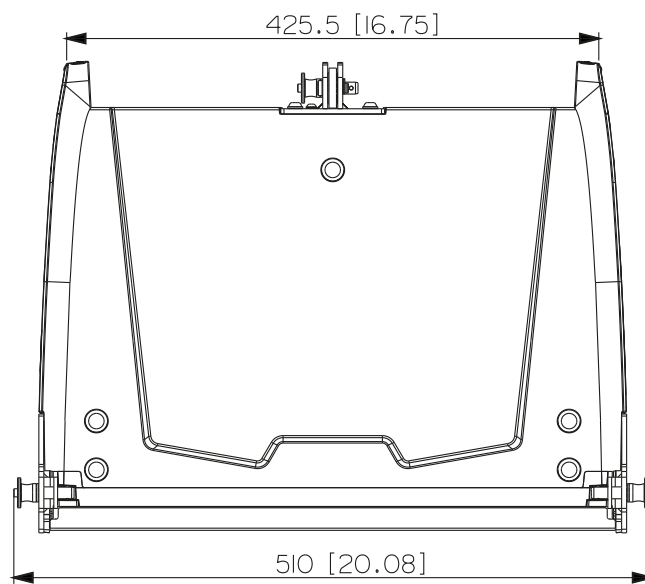
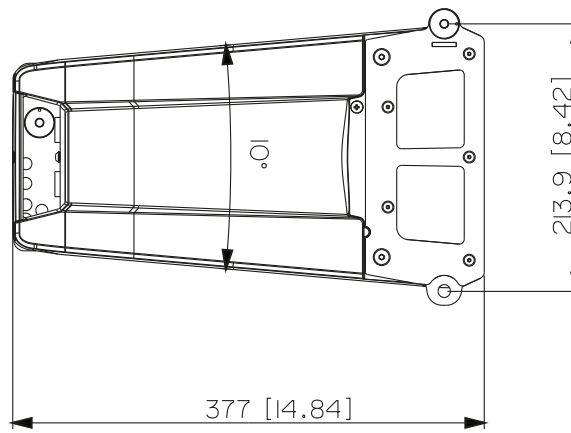
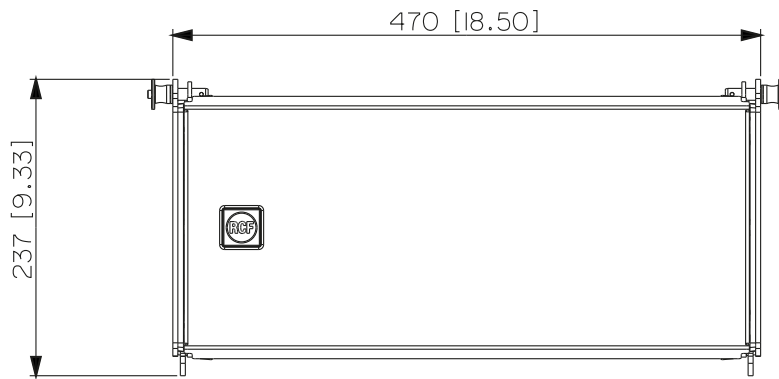
  **WARNING!** The kart has been designed to carry up to 6 speakers. Do not stack more than six HL 6 on one kart.

  **WARNING!** During transportation ensure the rigging components are not stressed or damaged by mechanical forces. Use suitable transport cases. We recommend the use of the RCF original touring kart for this purpose. Due to their surface treatment the rigging components are temporarily protected against moisture. However, ensure the components are in a dry state while stored or during transportation and use.

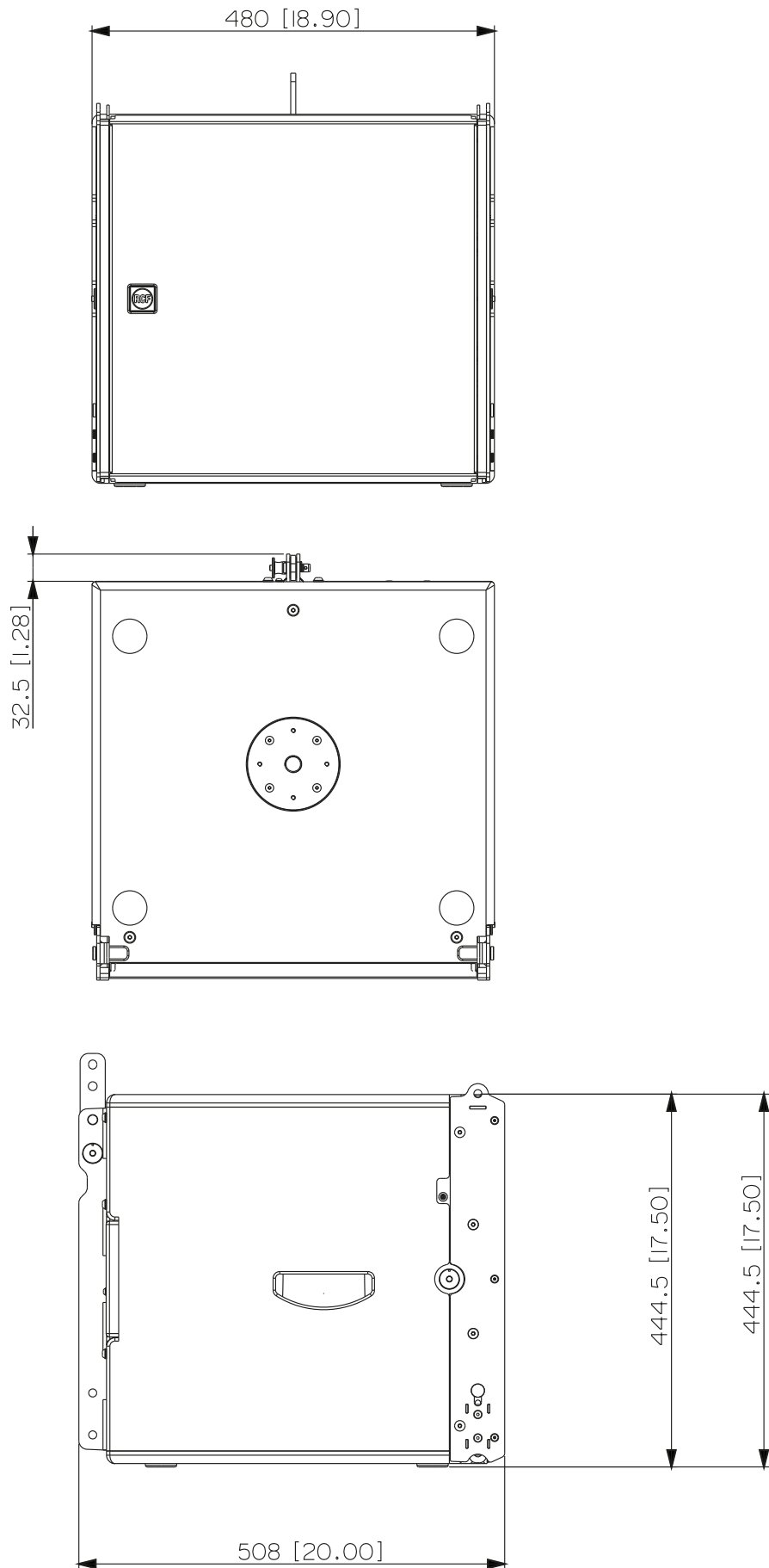
  **WARNING!** Exercise extreme caution when moving stacks of six cabinets with the Kart to avoid tipping. Do not move stacks in the front-to-back direction of the HL 6 (the long side); always move stacks sideways to avoid tipping.



HL 6 DIMENSIONS



HL 35-S DIMENSIONS



6. SPECIFICATIONS

		HL 6	HL 35-S
Acoustical specifications	Frequency Response (-10dB):	65 Hz ÷ 20000 Hz	40 Hz ÷ 140 Hz
	Max SPL @ 1m:	131 dB	134 dB
	Horizontal coverage angle:	100°	-
	Vertical coverage angle:	10°	-
	Directivity index Q:	16	-
Power section	Nominal Impedance:	16 ohm	8 ohm
	Power Handling:	250 W RMS	900 W
	Peak Power Handling:	1000 W PEAK	3600 W PEAK
	Recommended Amplifier:	500 W	1800 W
	Protections:	Dynamic Active Mosfet	-
	Crossover Frequencies:	900	-
Transducers	Compression Driver:	1 x 1.0" neo, 1.75" v.c	-
	Nominal Impedance:	16 ohm	-
	Input Power Rating:	50 W AES, 100 W PROGRAM POWER	-
	Sensitivity:	109 dB, 1W @ 1m	-
	Woofers:	2 x 6.0" neo, 2.0" v.c	15" neo, 4.0" v.c
	Nominal Impedance:	16 ohm	-
	Input Power Rating:	200 W AES, 400 W PROGRAM POWER	-
Sensitivity:	92 dB, 1W @ 1m	-	
Input/Output section	Input connectors:	Speakon	Speakon
	Output connectors:	Speakon	Speakon
Standard compliance	CE marking:	Yes	Yes
Physical specifications	Cabinet/Case Material:	PP Composite	Baltic birch plywood
	Hardware:	Integrated array mechanics	Integrated array mechanics
	Handles:	2 on the rear panel	On side panels
	Grille:	Steel	Steel
	Color:	Black	Black
Size	Height:	237 mm / 9.33 inches	444.5 mm / 17.5 inches
	Width:	470 mm / 18.5 inches	480 mm / 18.9 inches
	Depth:	377 mm / 14.84 inches	508 mm / 20 inches
	Weight:	11 kg / 24.25 lbs	28 kg / 61.73 lbs
Shipping informations	Package Height:	260 mm / 10.24 inches	530 mm / 20.87 inches
	Package Width:	550 mm / 21.65 inches	560 mm / 22.05 inches
	Package Depth:	425 mm / 16.73 inches	525 mm / 20.67 inches
	Package Weight:	12.4 kg / 27.34 lbs	33 kg / 72.75 lbs

