



GTS 19^G

HIGH DEFINITION SUBWOOFER

1	SAFETY PRECAUTIONS AND GENERAL INFORMATION	4
2	DESCRIPTION	6
3	CONNECTIONS	7
4	SOFTWARE MANUALS FOR GTX SYSTEMS	10
5	RIGGING THE SYSTEM	11
6	ACCESSORIES	12
7	INSTALLATION	14
7.1	PLACING THE SUBWOOFER ON THE CART	14
7.2	STACKING	16
	GTS 19G SPECIFICATION	26
	GTS 19G DIMENSIONS	27

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. TT+ Audio 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 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), 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. TT+ Audio 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.



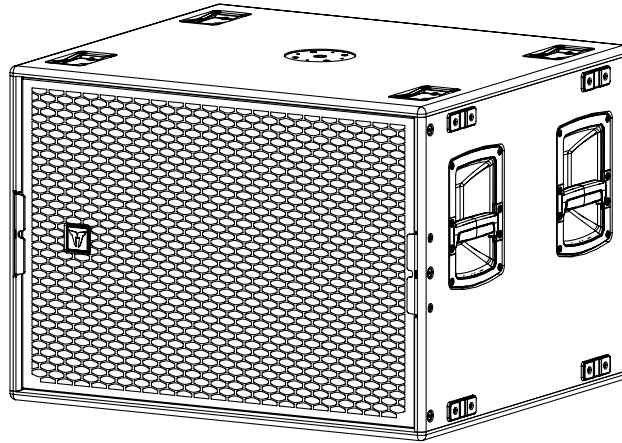
WARNING! CAUTION! For powered speakers, do cleaning only when the power is turned off.

TT+ Audio 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 the website.

2. DESCRIPTION

TT+ GTS 19G

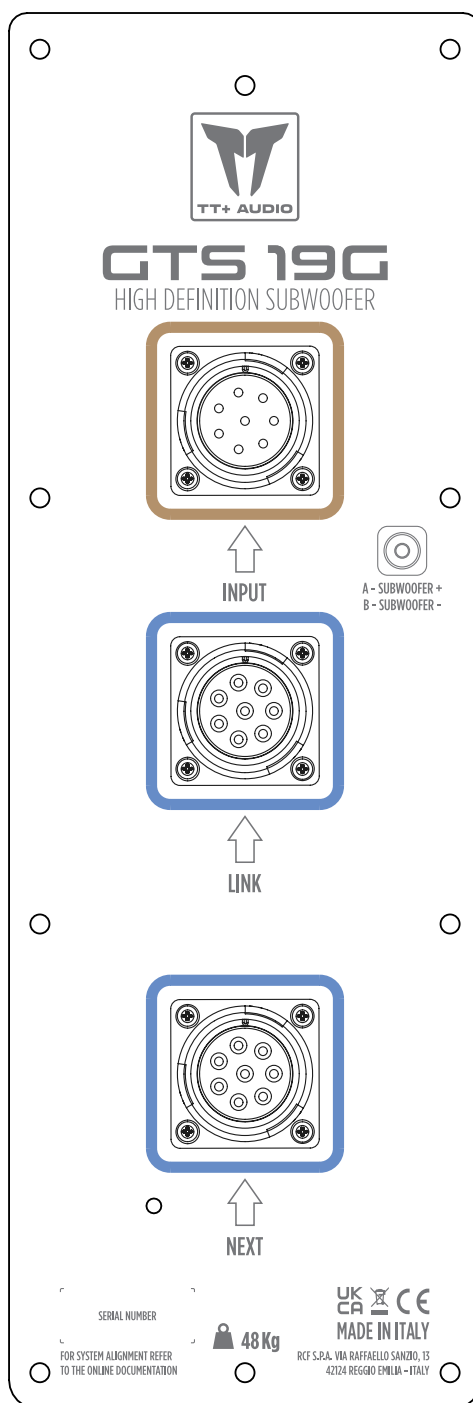
The GTS 19G is a 19" subwoofer module for the low-frequency extension in high-demanding touring and install applications, indoors and outdoors. Equipped with a high-excursion best-in-class transducer, it offers excellent playback quality and extreme sound pressure. The cabinet is provided with power connections on the rear panel.



TT+ GTS 19G

19" Neo Woofer
28 Hz ÷ 200 Hz
139 dB Max SPL
48,5 kg / 105.82 lbs

REAR PANEL



The rear panels feature three **8-Pin CA-COM sockets**. The **INPUT** socket receives the signal from the amplifier, the other two sockets are used to send the signal to another speaker (see Chapter 3 - CONNECTIONS) .



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.

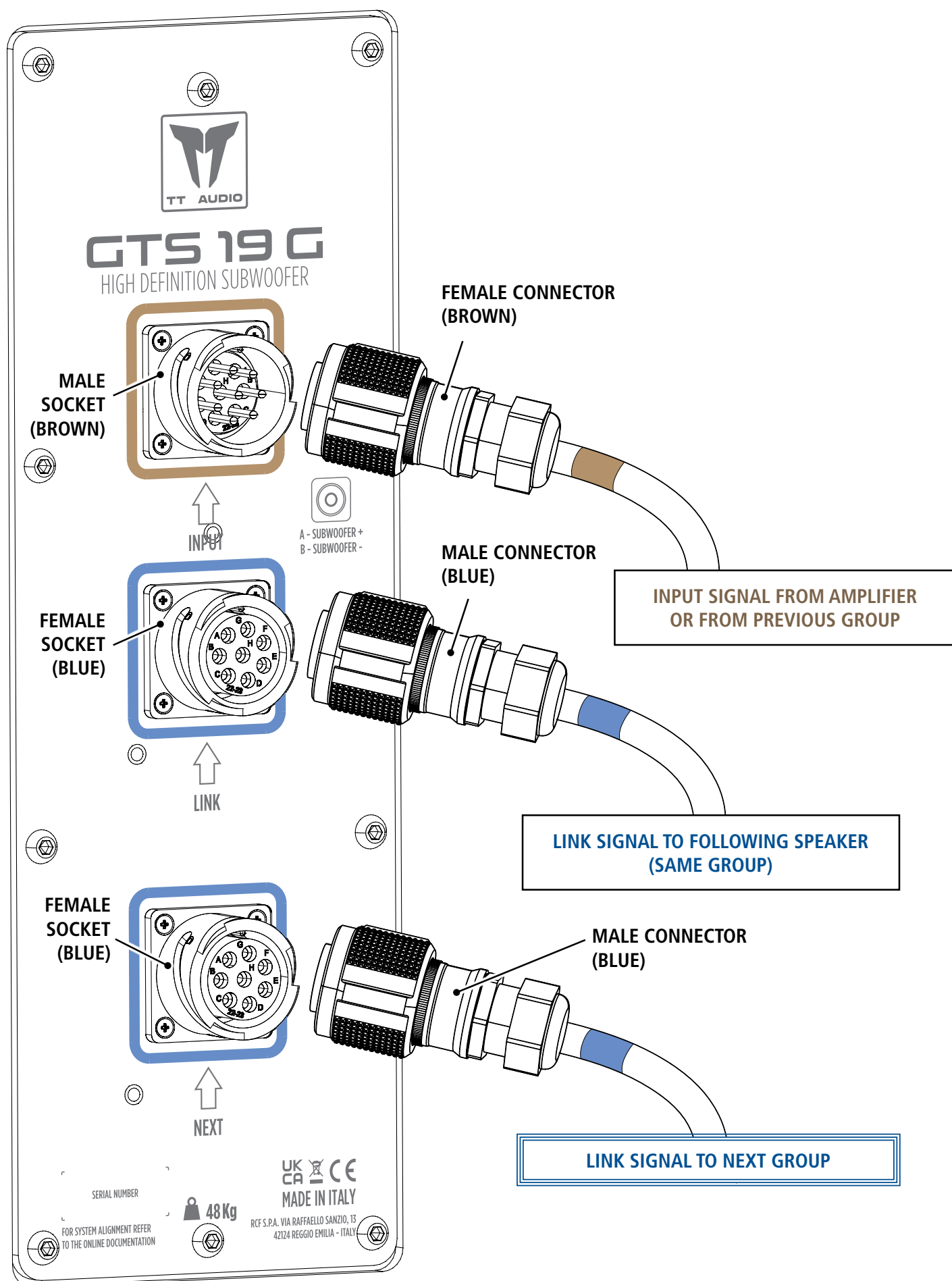
To prevent any risk of electric shock, do not connect loudspeakers when the amplifier is switched on.

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.

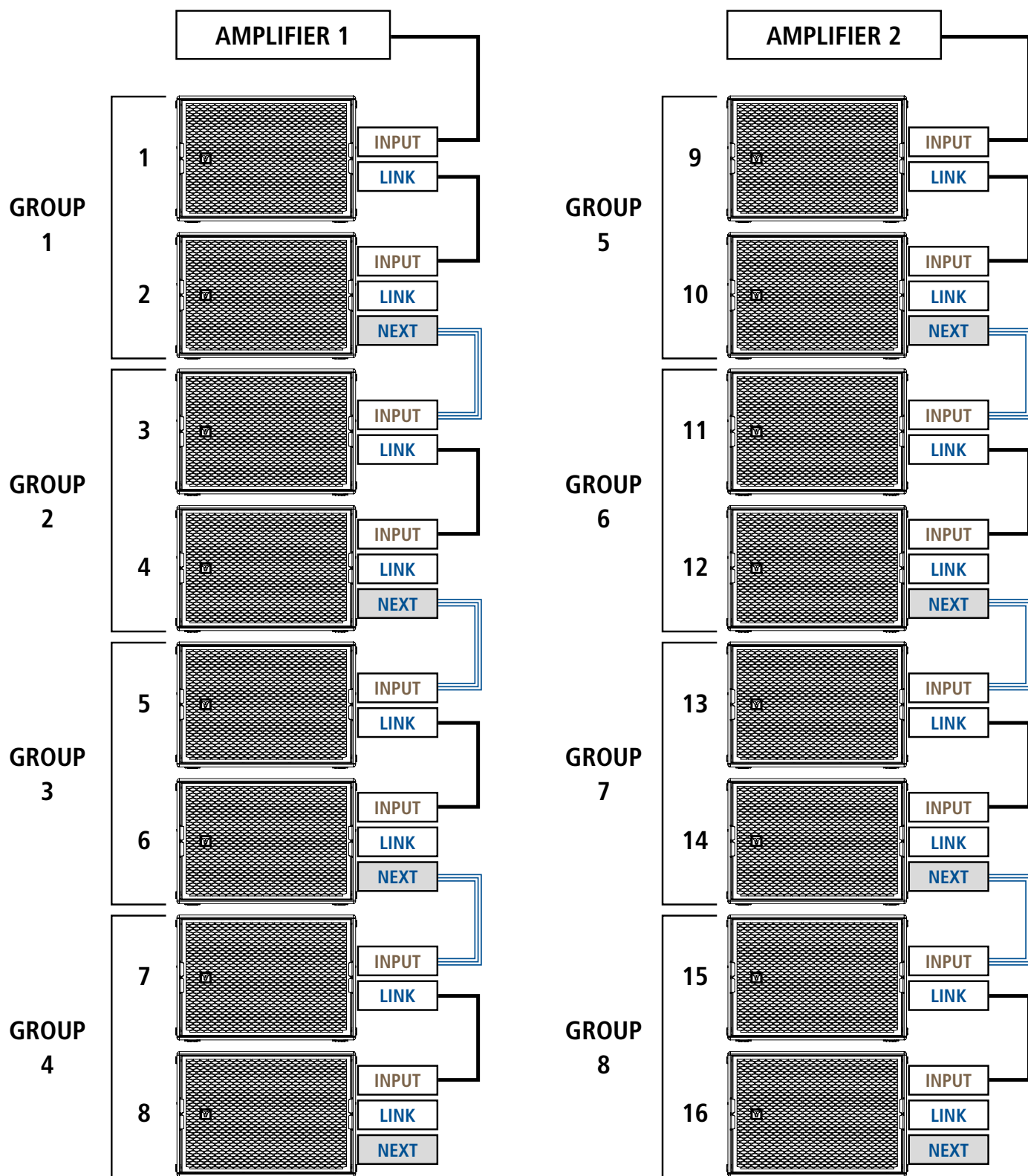
3. CONNECTIONS

Connect the cables in the speaker sockets (MALE to FEMALE; FEMALE to MALE) respecting the colors indicated on the cables and on the speaker rear panel. The connector must be secured to the socket by turning the grip clockwise.



3. CONNECTIONS

One amplifier drives **eight** speakers at the time divided into four groups of two. Follow the illustration below to connect the speakers.



4. SOFTWARE MANUALS FOR GTX SYSTEMS

For design, simulation and modeling of the system, please consult the **Shape D3D** Software Manual (from version 1.0).

For tuning, management, design, measurement and control of the system, please consult the **RDNet** Software Manual (from version 5.0).

Shape D3D

Shape D3D is TT+ AUDIO's simulation software for modeling the acoustic performance of its line arrays, column arrays, point source loudspeakers, and subwoofers. The software facilitates tasks related to acoustic design, predicting SPL and frequency performance, aligning loudspeakers, rigging hardware, and ensuring safety parameters are met. Shape D3D enables autoplay for line arrays to properly plan the system coverage and allows users to streamline setup and tuning for touring applications.

Export Shapes to RDNet

Within Shape D3D, users can define listening planes representing audience areas within a specific venue, creating a 3D representation with multiple virtual microphones for IR-modeled measures. The RDNet remote control software can import data defined in Shape D3D to generate control data and provide full configuration details to the system after deployment.

RDNet® 5 Networked Management

RDNet is an advanced management, design, measurement and control platform for TT+ AUDIO systems. A network user can remotely monitor system status, measure the system frequency/phase response and control levels, delays, EQs, and many other settings of single or grouped devices, including advanced subwoofer array configurations.

AMFG® EASE

In EASE, each loudspeaker is described by a system definition profile, known as a GLL file, containing the loudspeaker system's mechanical, electronic, and acoustic properties. TT+ AUDIO provides GLL files for all TT+ Audio loudspeakers. These GLL files can be shared with EASE and EASE Focus software for system design and acoustic simulation.

TT+ Audio 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!

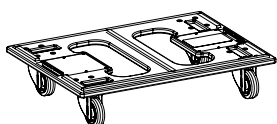
The system must be rigged in accordance with the laws and regulations of the Country where the system is used. It is responsibility of the owner or rigger to make sure the system is properly rigged in accordance with Country and local laws and regulations.

Always check that all the parts of the rigging system that are not provided from TT+ Audio 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

6. ACCESSORIES

TRANSPORTATION ACCESSORIES


KRT-WH 005

P/N 13360568

Cart for the transportation of a single GTS 19G module

CABLES ACCESSORIES


CBL 003

P/N 12399073

1 m (3,2 ft.) P-COM 8 Cable. 8 x 4 mm (12 awg) cable to connect GTX or GTS modules.


CBL 009

P/N 12399080

4 m (13 ft.) P-COM 8 Cable. 8 x 4 mm (12 awg) cable to connect GTX or GTS modules.


CBL 004

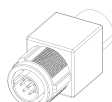
P/N 12399074

10 m (32.8 ft.) P-COM 8 Cable. 8 x 4mm (12 awg) cable to connect GTX or GTS modules with TTR 16K Touring Rack.


CBL 005

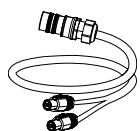
P/N 12399075

25 m (82 ft.) P-COM 8 Cable. 8 x 4 mm (12 awg) cable to connect GTX or GTS modules with TTR 16K Touring Rack.


CN-KIT 006

P/N 12399076

Adapter for the connection between two P-COM 8 cables.

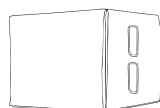

CBL 010

P/N 12399082

1,5m long cable adapter to connect XPS 16K amplifiers to GTX/GTS modules converting two NL4 speakon connectors to a female P-COM 8 connector.

A P-COM 8 (male to female) cable with any available length is needed to complete the connection with the speaker.

COVERS ACCESSORIES


CVR 008

P/N 13360570

Padded cover for subwoofer GTS 19G.

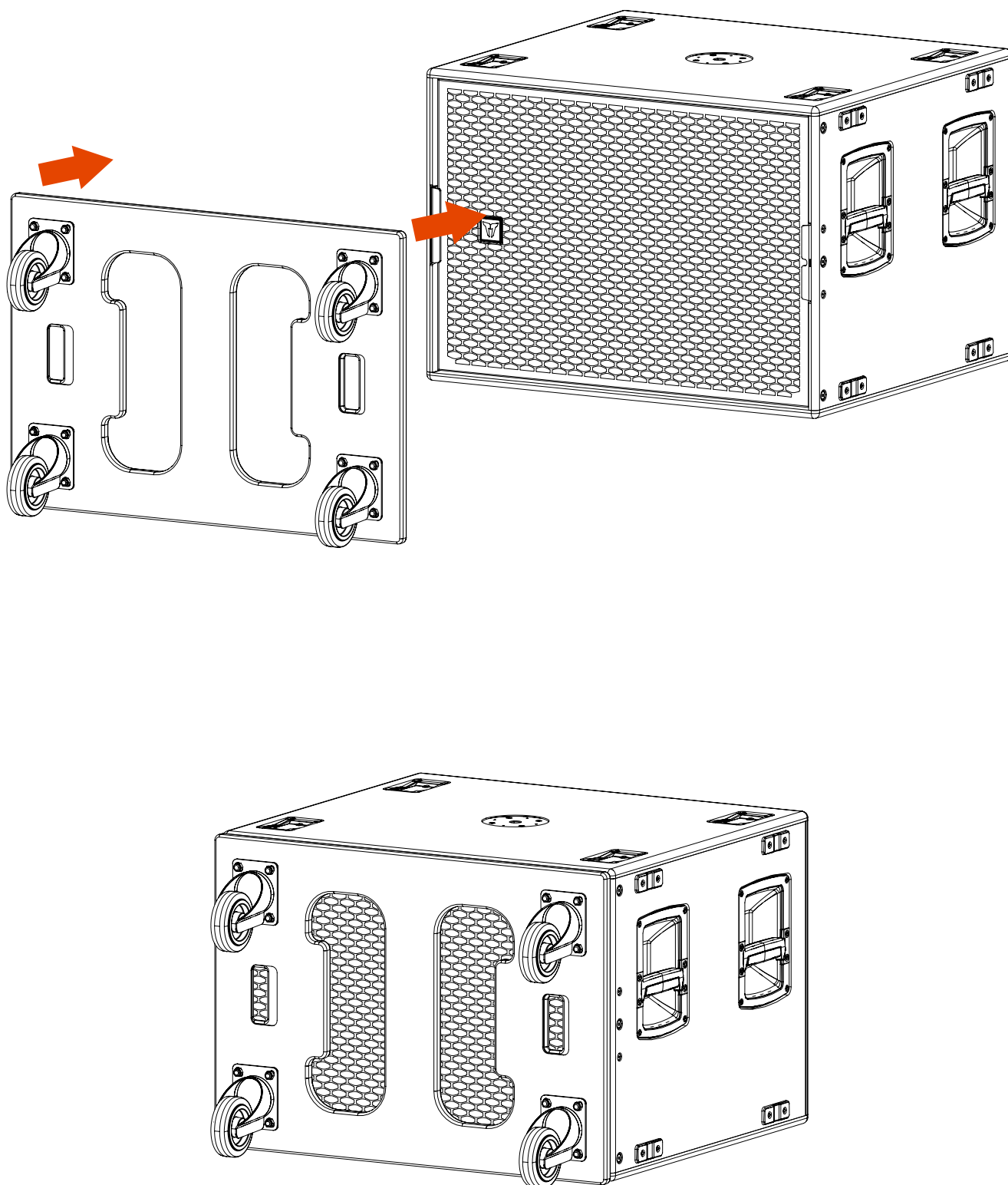
7. INSTALLATION

7.1 PLACING THE SUBWOOFER ON THE CART

CART KRT-WH 005

The cart KRT-WH 005 allows the transportation of one single GTS 19G facing downwards.

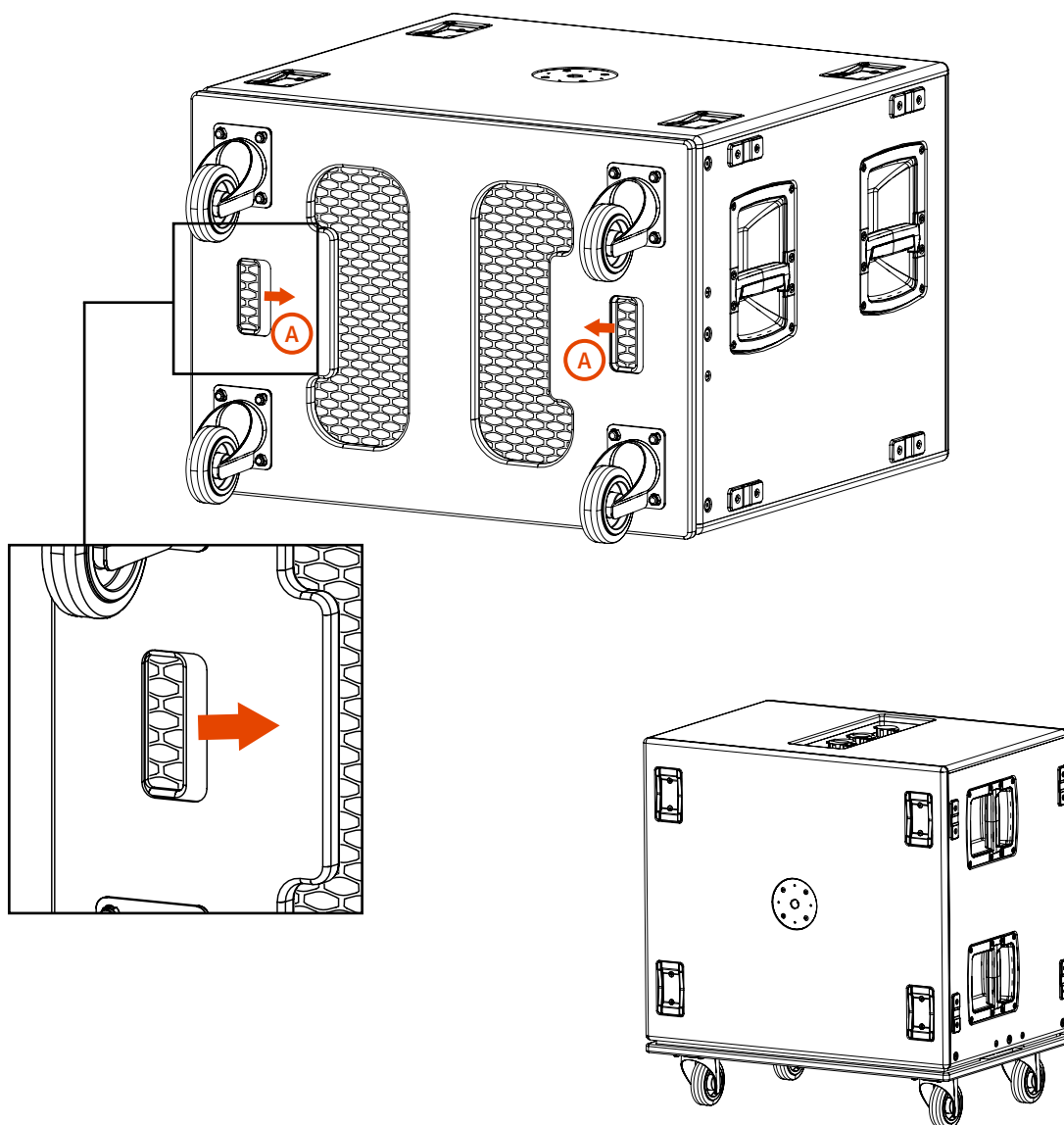
Place the cart on the front side of the subwoofer



7. INSTALLATION

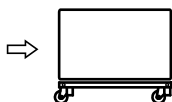
EN

Slide the two handles **A** towards the center so that it hooks into the subwoofer lateral front brackets.



Once the cart is fixed to the subwoofer you can rotate it and transport the load.

**ALWAYS PUSH THE
CART LENGTHWISE**



REFER TO MANUAL FOR
FURTHER INSTRUCTIONS

**DO NOT
TILT!**

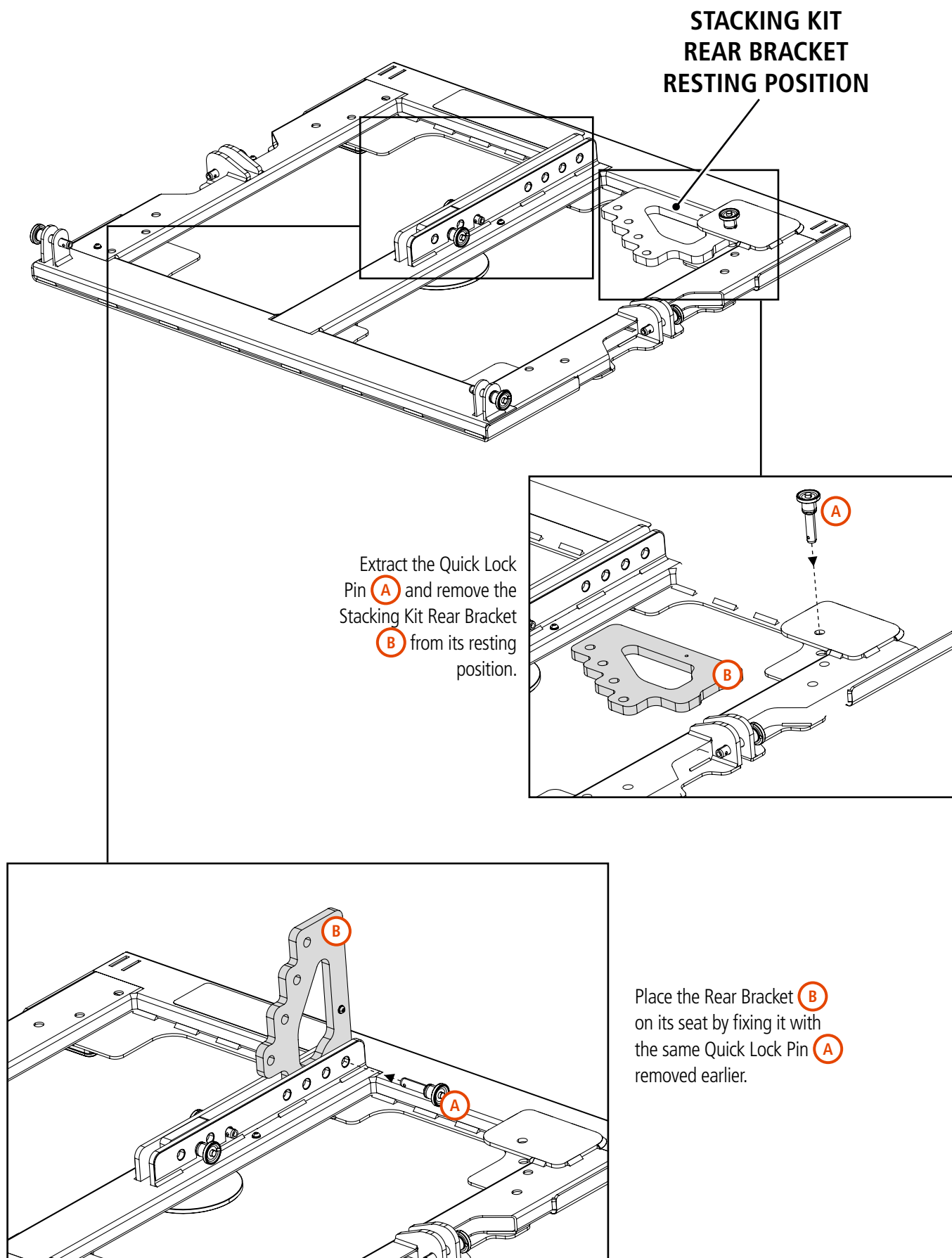


CAUTION! Always make sure both the handles are locked onto the subwoofer front brackets before moving the cart.

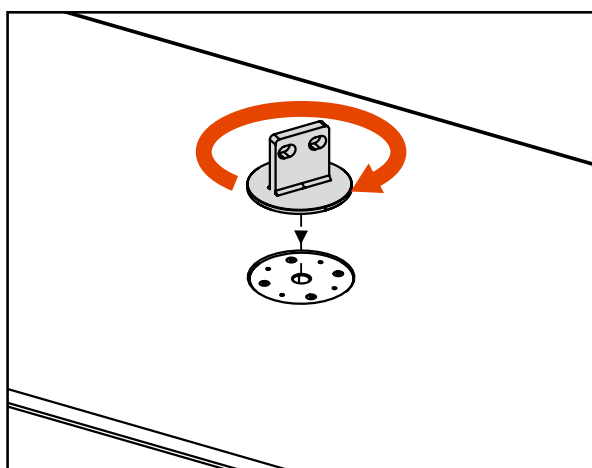
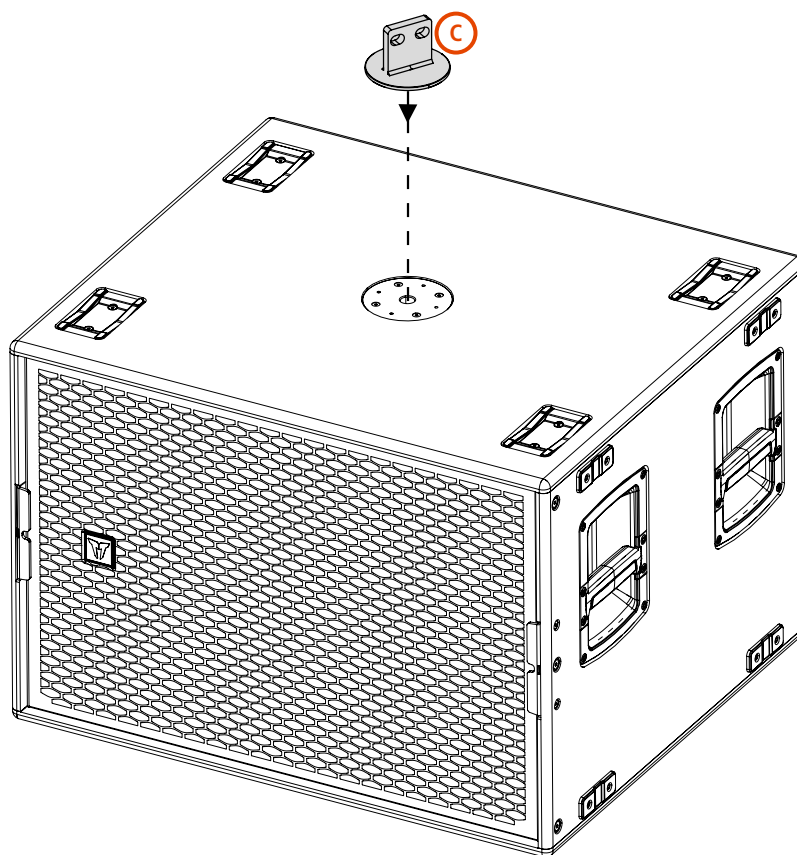
7. INSTALLATION

7.2 STACKING

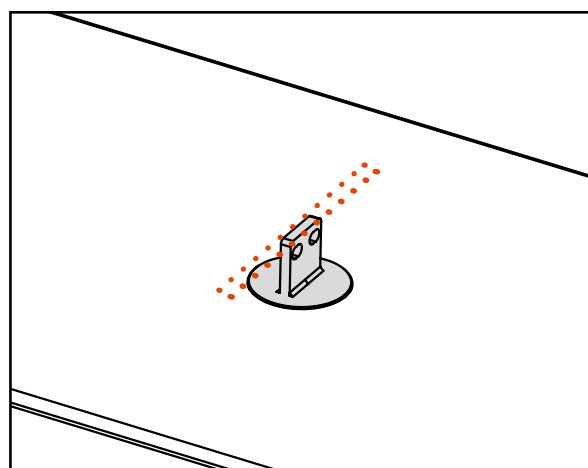
Up to 4 GTX10 modules can be stacked on a single or double GTS 19G with the use of the accessory **STACKING KIT STCK-KIT 003**.



On the subwoofer top side, screw the M20 bracket  on its seat and place it perpendicularly as shown in the picture.



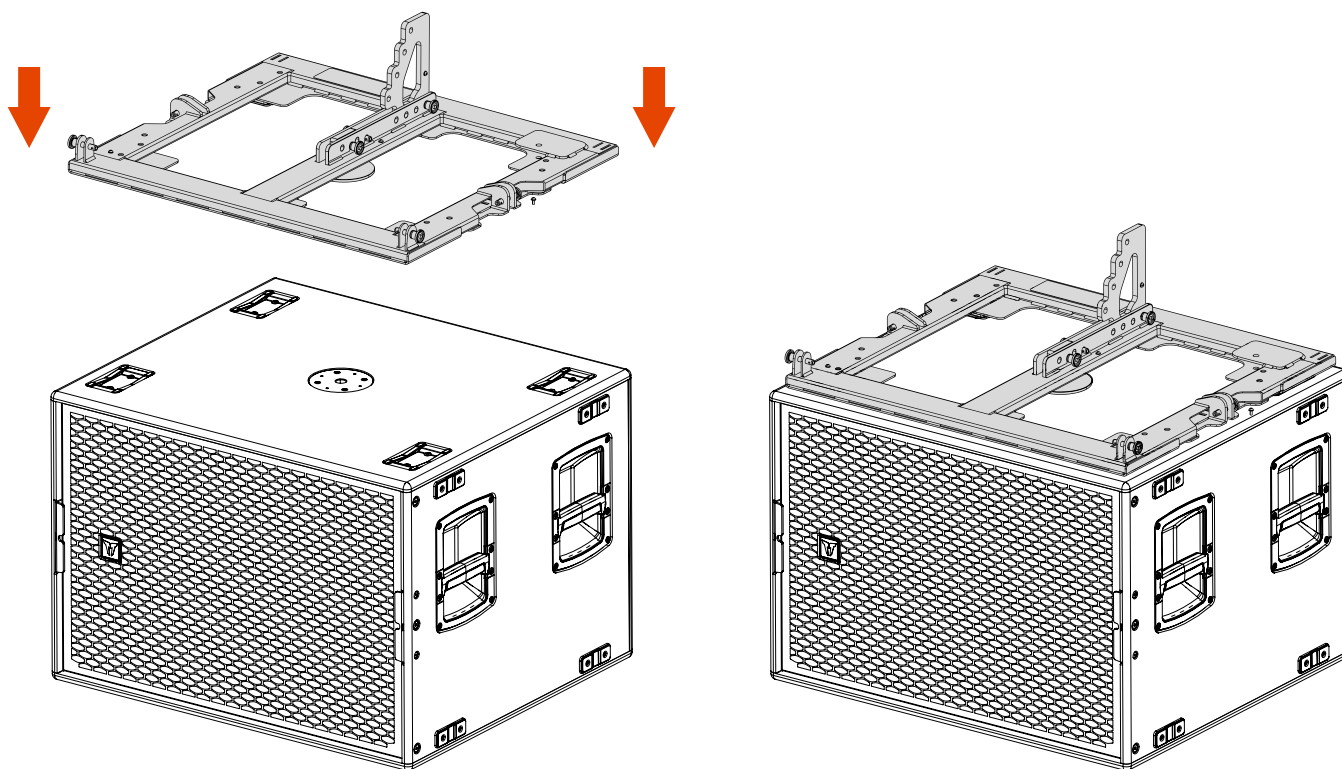
Screw the M20 bracket into its seat.



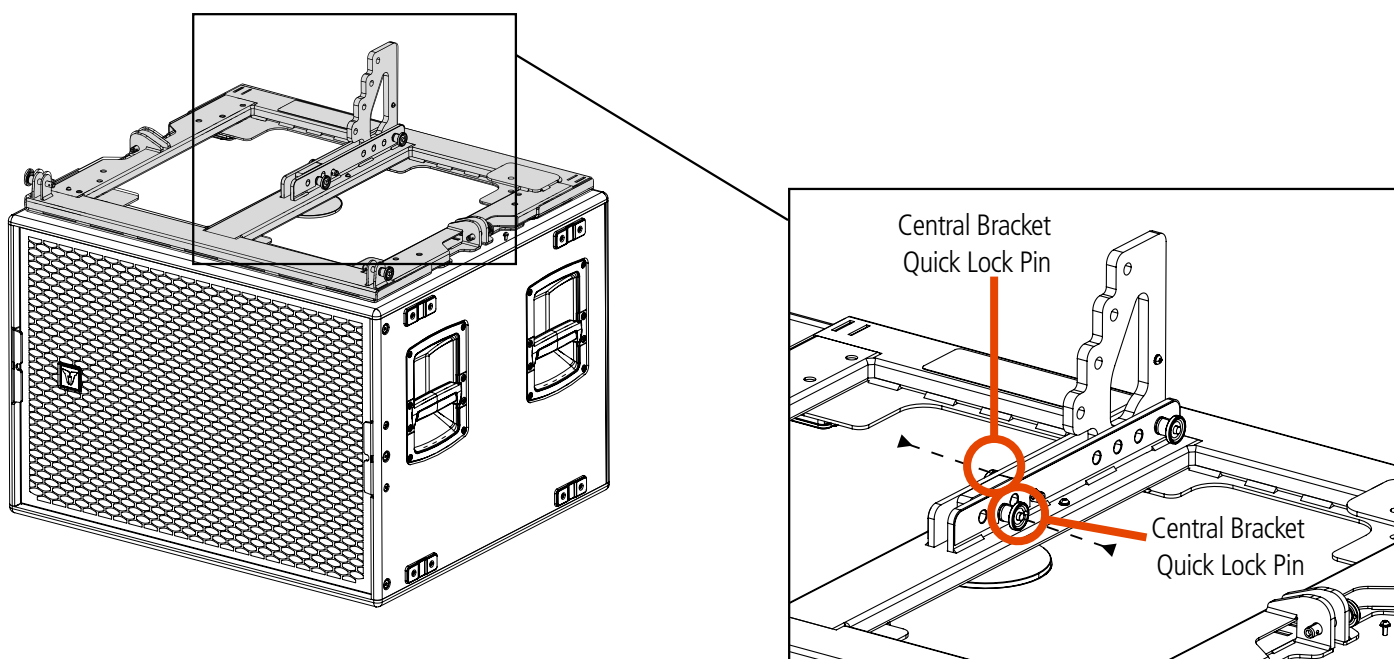
Place it perpendicularly.

7. INSTALLATION

Place the **STACKING KIT STCK-KIT 003** over GTS 19G (double or single) making the central round bracket match with the subwoofer seat.

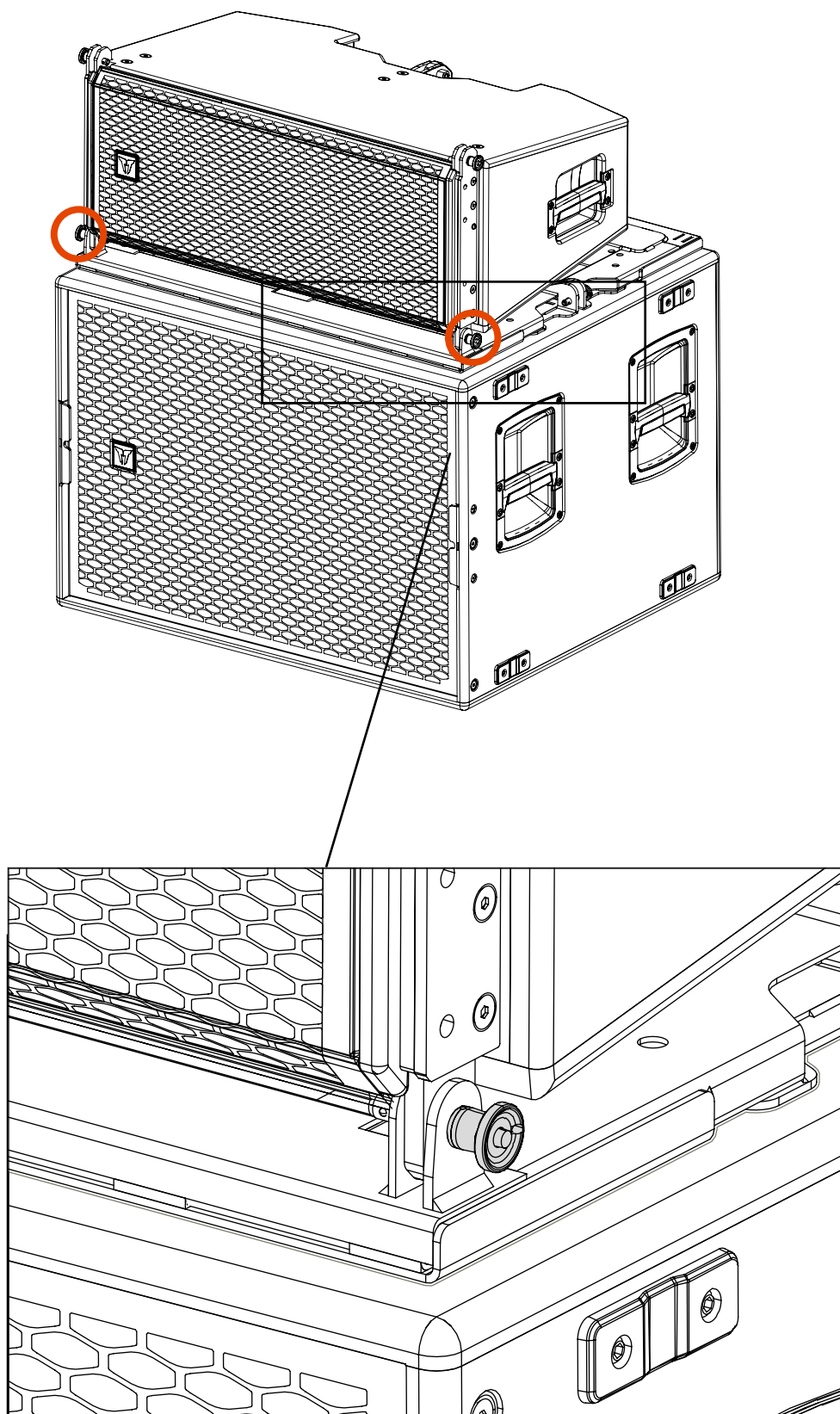


Fix the **STACKING KIT STCK-KIT 003** to the subwoofer with two Quick Lock Pins on the central bracket.



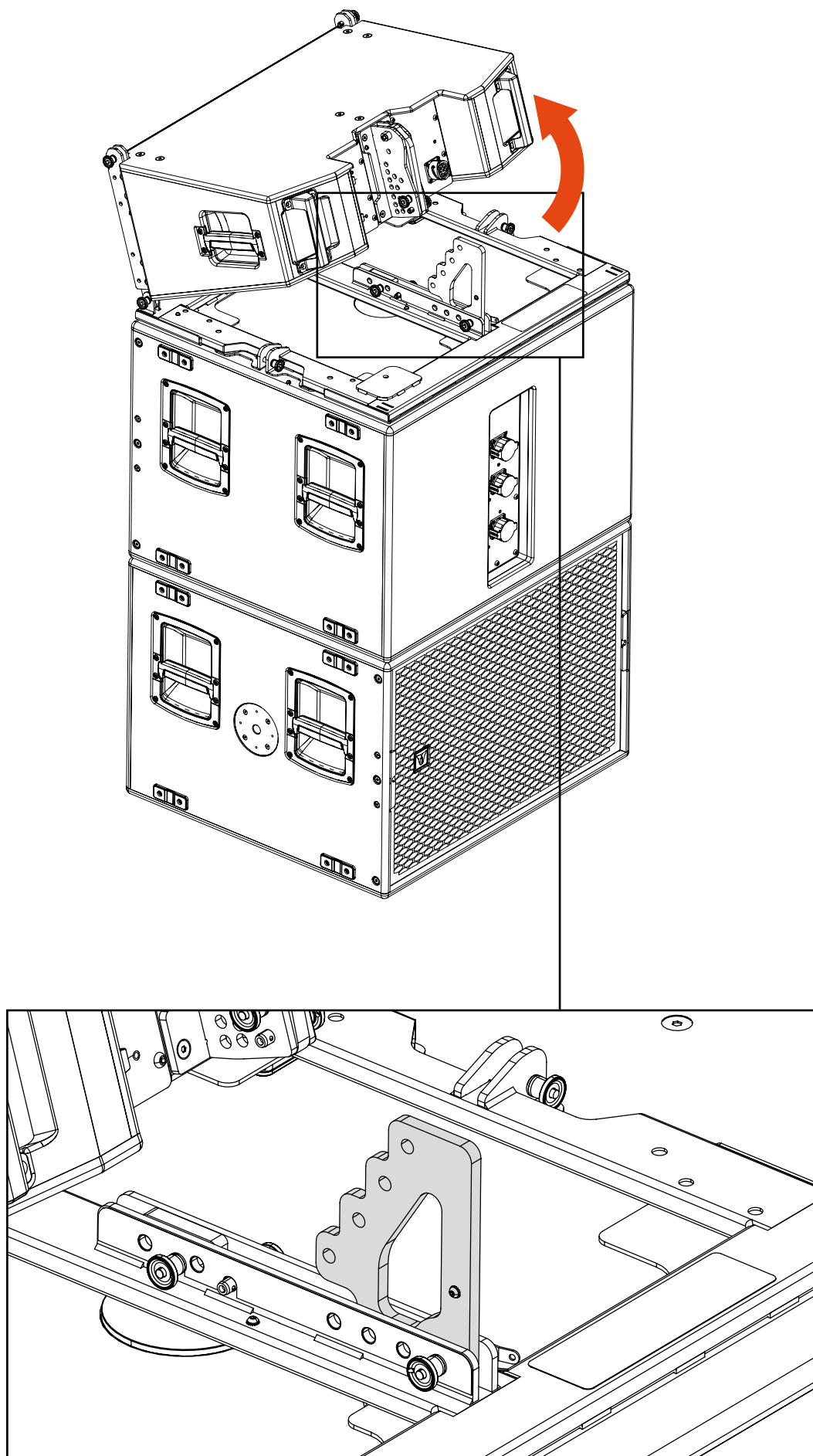
7. INSTALLATION

Place one GTX10 over the stacking kit making the front brackets match each other, then fix it with a Quick Lock Pin (on both sides).



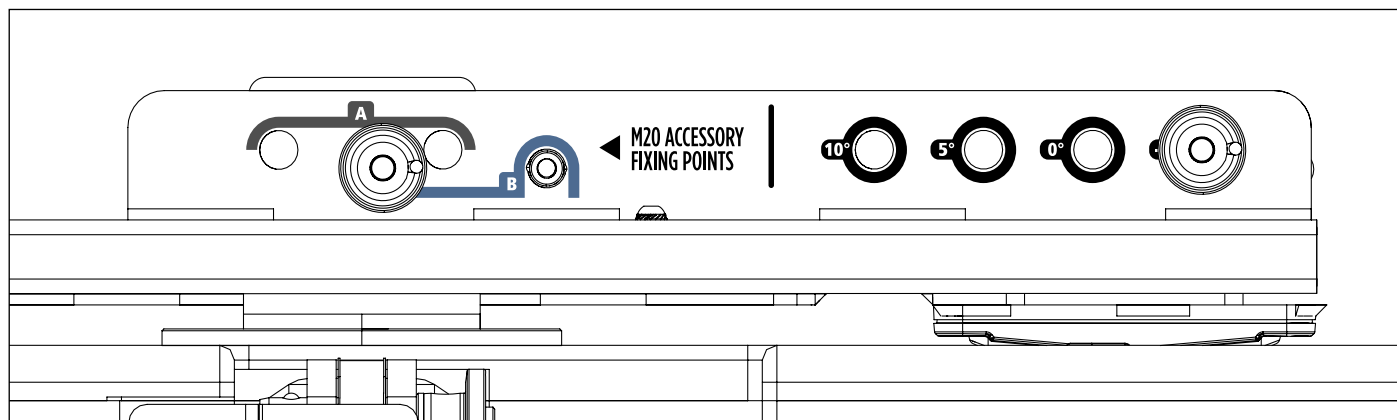
7. INSTALLATION

Lift up the rear side of GTX10 in order to expose the stacking kit rear bracket.



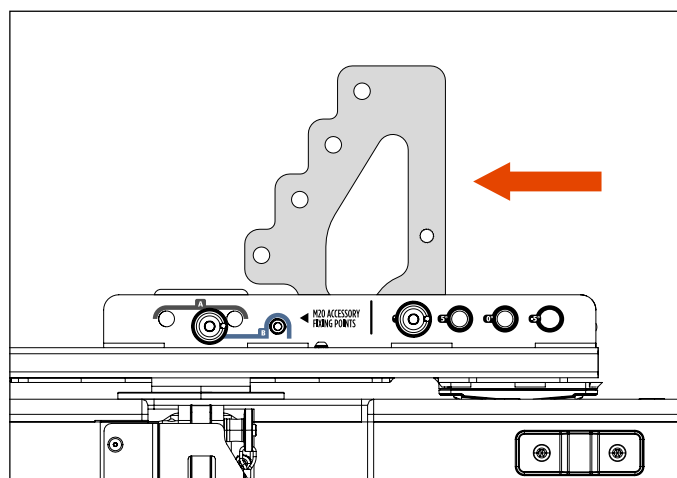
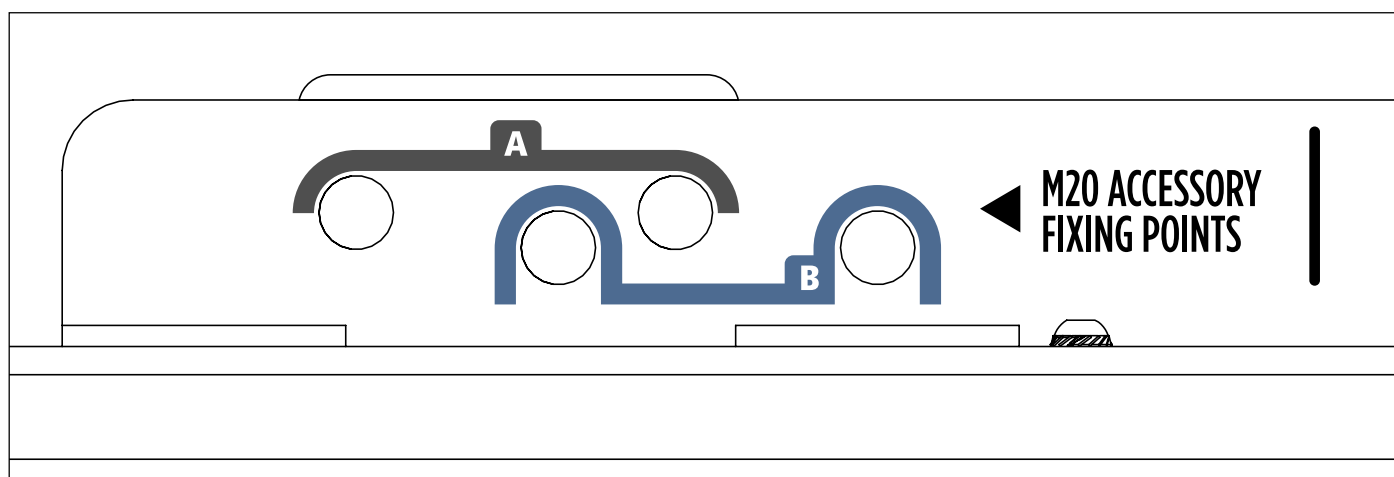
7. INSTALLATION

Relatively to the angle indicated on the stacking kit label, move the bracket upwards and forward to set the desired inclination angle of the first cabinet.

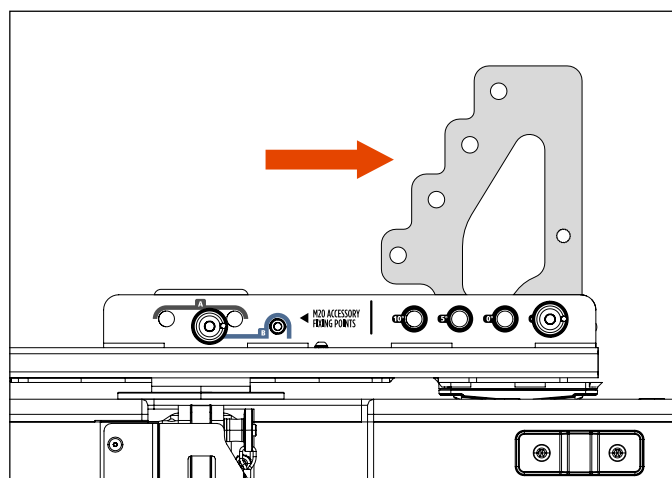


Fix the Stacking bar to the M20 Accessory with two Quick Lock Pins

- use Fixing Points **A** on Subwoofer GTS 29
- use Fixing Points **B** on Subwoofer GTS 19G



Example: bracket set to 10° angle

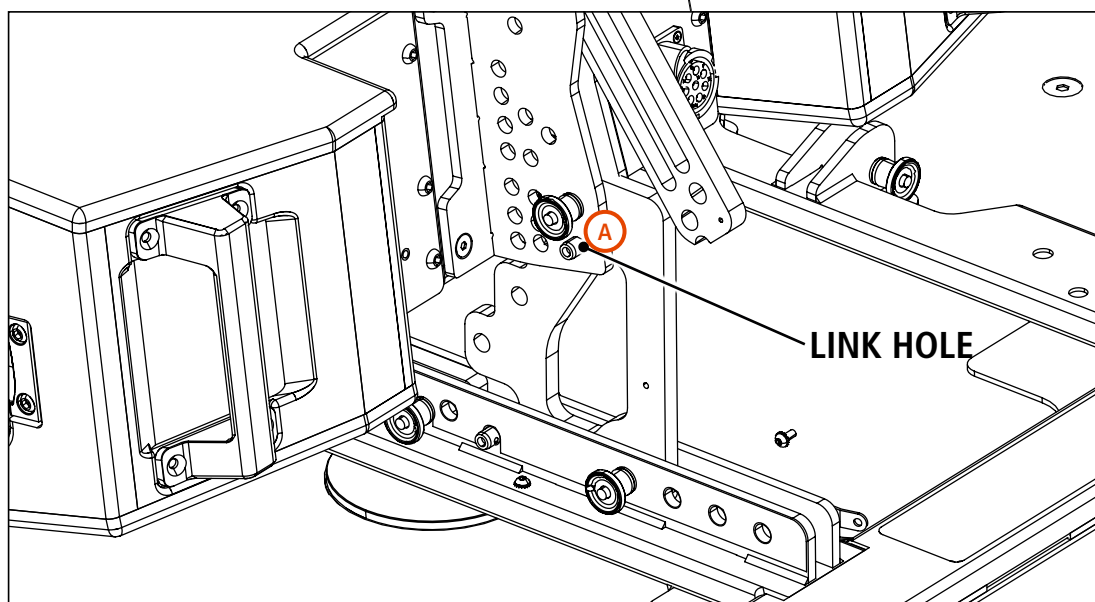
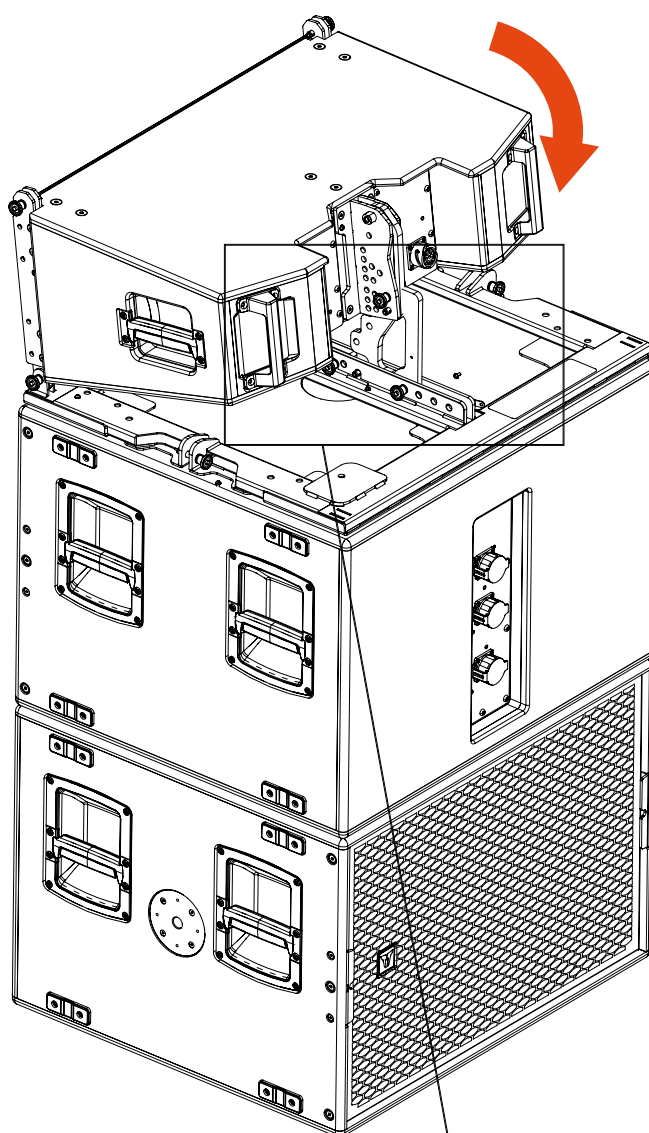


Example: bracket set to -5° angle

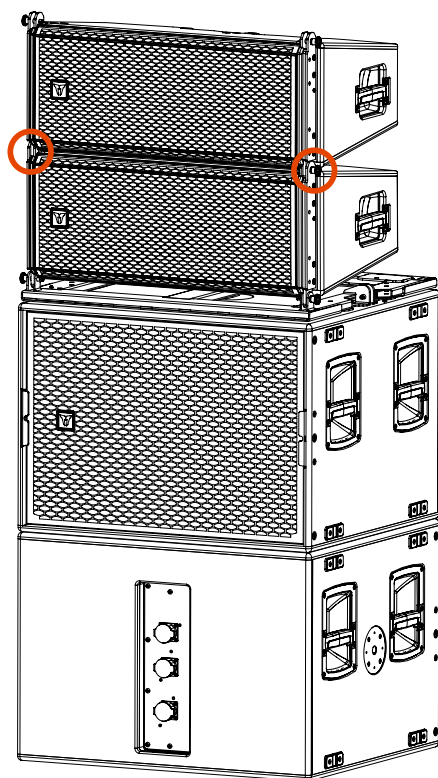
Once chosen the desired angle, lock the bracket with a Quick Lock Pin.

7. INSTALLATION

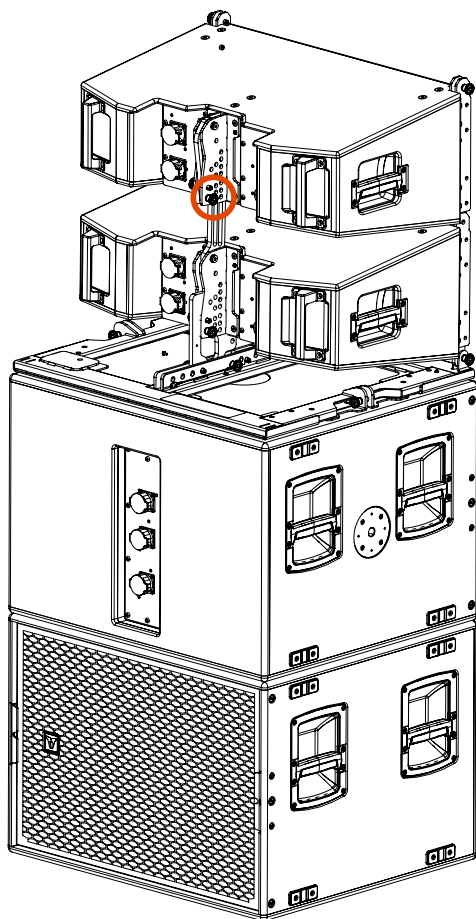
Lower the module and fix the rear brackets with a Quick Lock Pin **A**.



Place the second speaker over the first one and fix it on the front side with two Quick Lock Pins.



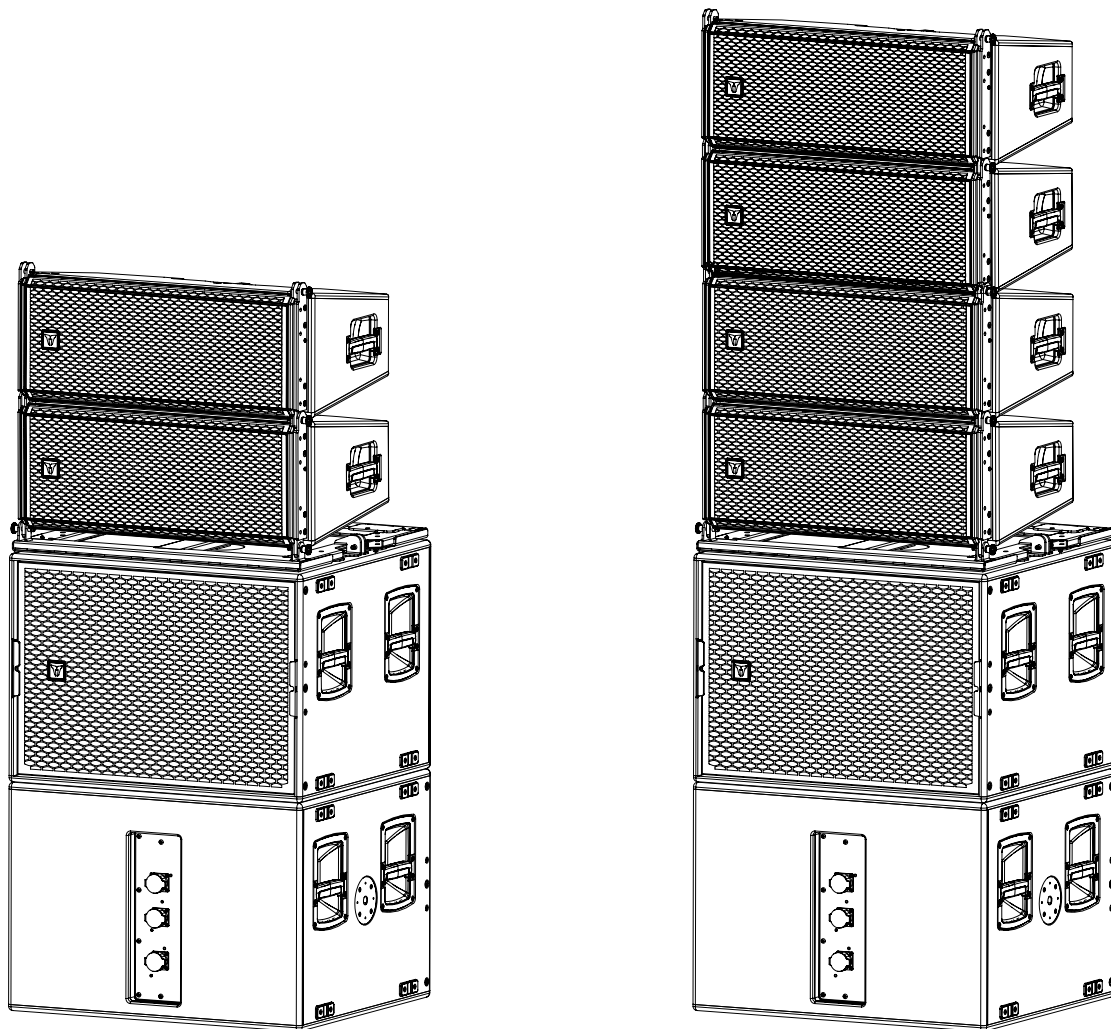
On the rear side lift up the rear bracket and connect the two speakers. See chapter 7.1 for instructions.



7. INSTALLATION



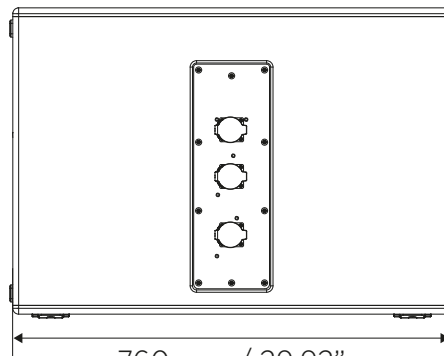
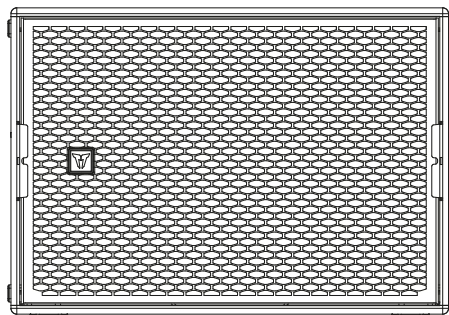
IMPORTANT NOTE: Up to 4 x GTX10 can be mounted on stacking over a single or double subwoofer GTS 19G.



WARNING! CAUTION! The system should always be installed by qualified and experienced personnel having the technical know-how or enough specific instructions in order to prevent any danger.

GTS 19G - SPECIFICATION

Acoustical specifications	Frequency Response (-10dB)	28 Hz ÷ 200 Hz
	Max SPL @ 1m	139 dB
Power section	Amplification	Full Range
	Nominal Impedance LF2	8 ohm
Transducers	Woofer	1 x 19" neo, 4.0" v.c
Input/Output section	Input connectors	P-COM 8POLE
	Output connectors	P-COM 8POLE
Standard compliance	Safety agency	CE compliant
Physical specifications	Hardware	M20 Socket
	Handles	2 x side
	Color	Black
Size	Height	531.5 mm / 20.93 inches
	Width	760 mm / 29.92 inches
	Depth	655 mm / 25.79 inches
	Weight	48,5 kg / 106.92 lbs



760 mm / 29.92"

