

HORNET LINE ARRAY

User Manual



Systems:

Hornet 12
Hornet Sub 18



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1. Safety instructions



1. Read these instructions carefully.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this system near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Failure to do so may cause fast overheating and force system to switch itself off.
8. Do not use the system near heat sources such as stoves, radiators or other equipment that produces massive heat.
9. Do not use the system near open fire sources.
10. Connect the system only to the electric network with grounding.¹
11. Protect the power cord from being walked on, pinched, or otherwise damaged.¹
12. Use only accessories specified by the manufacturer.
13. Use only the cart, stand, tripod or bracket specified by the manufacturer, or sold with the unit. When a cart is used, use caution when moving the cart with unit to avoid injury from tip-over.
14. Unplug this system during lightning storms or when unused for long periods of time.
15. Refer all servicing to qualified service personnel. Servicing is required when the system has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the unit, the unit has been exposed to rain or moisture, does not operate normally, or has been dropped.
16. To completely disconnect this system from AC mains, disconnect the power supply cord from the AC receptacle.¹
17. WARNING - TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS SYSTEM UNIT TO RAIN OR MOISTURE.
18. The main plug of the power supply cord shall remain readily operable.¹
19. This system is capable of delivering significant sound pressure levels. To avoid permanent or temporary hearing damage, prolonged exposure to sound pressure levels exceeding 90 dB should be limited

THIS SYSTEM CONTAINS POTENTIALLY LETHAL VOLTAGES. TO PREVENT ELECTRIC SHOCK OR HAZARD, DO NOT REMOVE AMPLIFIER MODULE OR ITS PARTS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.¹

MOUNTING AND SUSPENSION OF THIS SYSTEM MUST BE PERFORMED ONLY BY QUALIFIED TRAINED PERSONNEL FOLLOWING APPLICABLE SAFETY RULES. DO NOT ALLOW MOUNTING OR SUSPENSION OF THIS UNIT IF MOUNTING OR SUSPENSION HARDWARE IS BROKEN, BENT, PARTS ARE MISSING OR ARE OTHERWISE DAMAGED.

¹ - for powered systems only

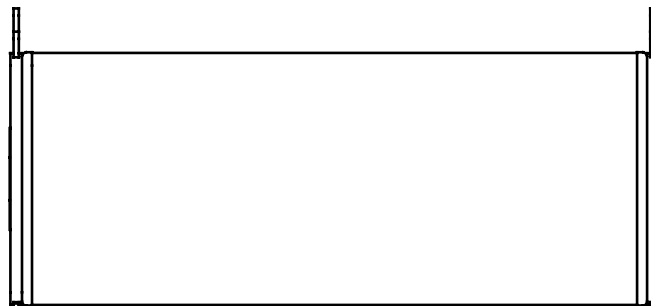
2. System description

Hornet is the most powerful representative of the MAG Audio family of line arrays. Extremely powerful 3-way all-neodymium Hornet 12 units deliver ultimate sound pressure levels, while retaining control and steering of the sonic picture.

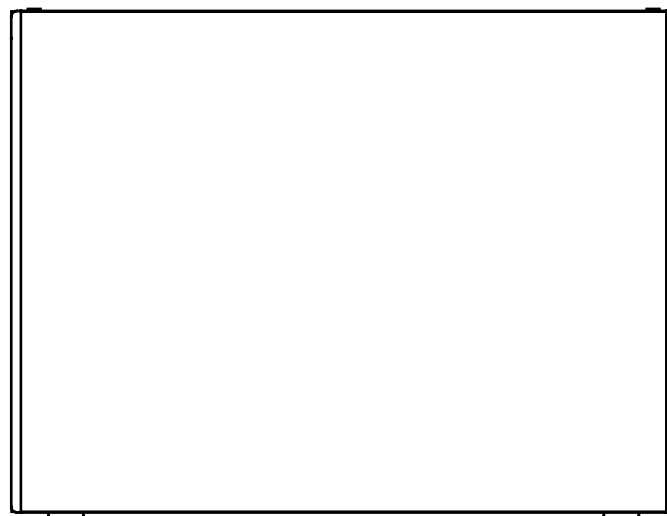
Based on own MAG Audio carefully developed high-efficient neodymium cone transducers and HF drivers, Hornet 12 was created to be the most compact, lightweight and powerful system for mid and large scale indoor and outdoor concerts, touring, sport events, and clubs.

Fitted with proprietary design flying hardware, Hornet 12 stacking and flying is quick and easy, with link action easily understood even by the child. Followed by numerous setup options, including flying directly from ground carts, Hornet 12 is the choice for mobile professionals, touring teams, and rental sound.

For even more impact, Hornet line array is completed with dual 18-inch hybrid horn Hornet Sub 18 subwoofers, capable of delivering tremendous 147 dB peak sound pressure level per single unit.



Hornet 12 Part No. 0022801179



Hornet Sub 18 Part No. 0022801211

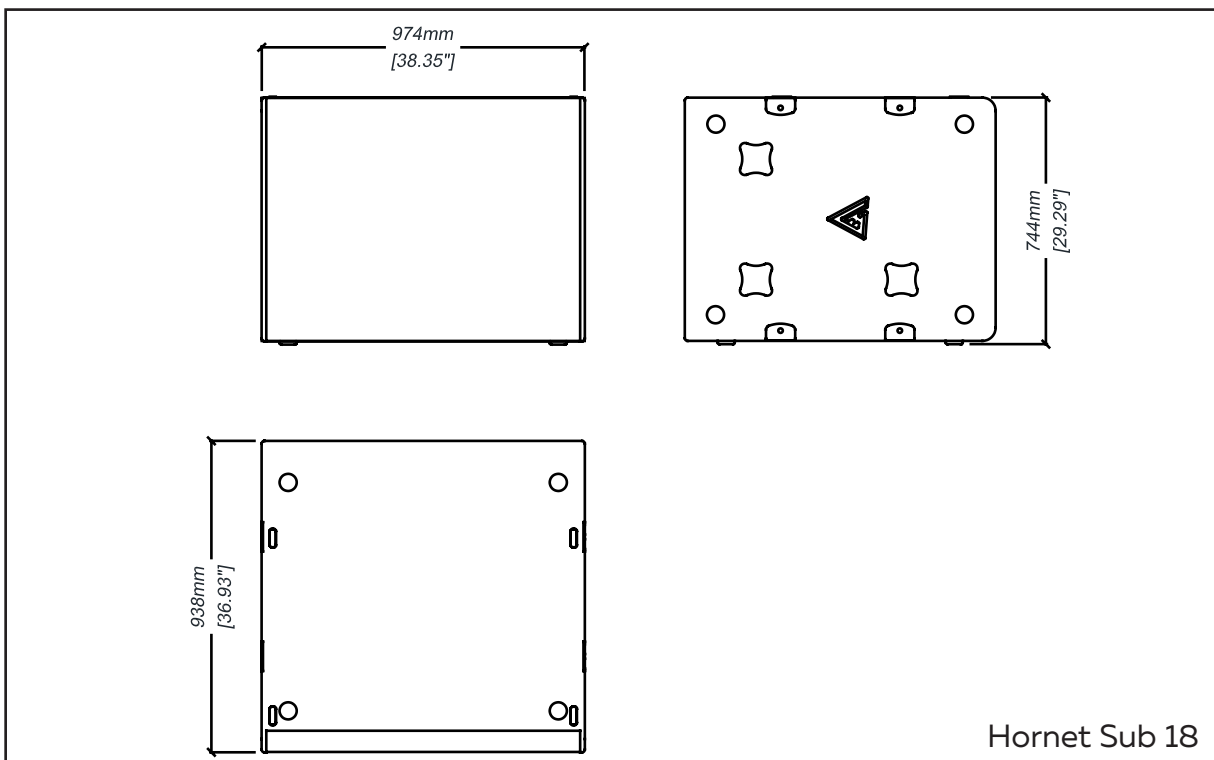
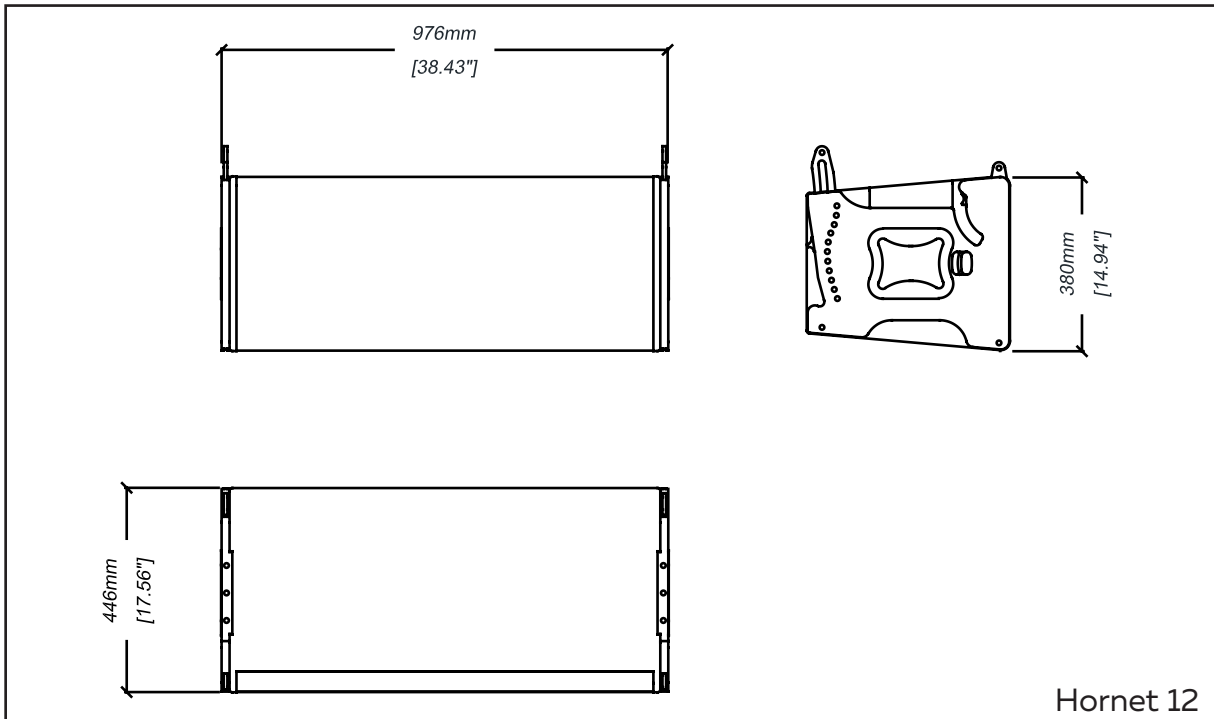
3.1. Specifications - Technical data



System	Hornet 12
Type	Passive line array module
Frequency response (-10dB)	45 – 18000 Hz
Max SPL (peak)	142 dB (calculated)
Sensitivity (1W/1m)	99 dB LF / 107 dB MF / 112 dB HF
LF Transducer	2x12"
MF Transducer	4x6"
HF Transducer	2x1,4"
Nominal coverage HxV	110° x Depends on the number of cabinets
Impedance	8 Ohm LF / 8 Ohm MF / 8 Ohm HF
Nominal power (1)	2600 W (2000 W + 400 W + 200 W)
Program power	5200 W
Peak power	10400 W
Connectors	2x 8 pin Neutrik Speakon
Dimensions (WxHxD)	975x381x444 mm
Net weight	70 kg
Shipping weight	74 kg
Mounting	Integrated flying hardware 0° – 10° Sply angle
Enclosure materials	Plywood; wear-resistant paint
Grill	Steel grill, polymer protective net
Color	Black

System	Hornet Sub 18
Type	Passive line array subwoofer
Frequency response (-10dB)	35 – 120 Hz
Max SPL (peak)	147 dB (calculated)
Sensitivity (1W/1m)	106 dB
LF Transducer	2x18"
Impedance	4 Ohm
Nominal power (1)	3200 W
Program power	6400 W
Peak power	12800 W
Connectors	2x Neutrik Speakon
Dimensions (WxHxD)	980x744x938 mm
Net weight	105 kg
Shipping weight	110 kg
Mounting	Integrated flying hardware
Enclosure materials	Plywood; wear-resistant paint
Grill	Steel grill
Color	Black

3.2. Specifications - Dimensions



4.1. System operation - Rigging



Hornet Line Array systems are equipped with built-in rigging hardware allowing for quick installation/dismantling times. Additional accessories include wheel carts for easy transportation.

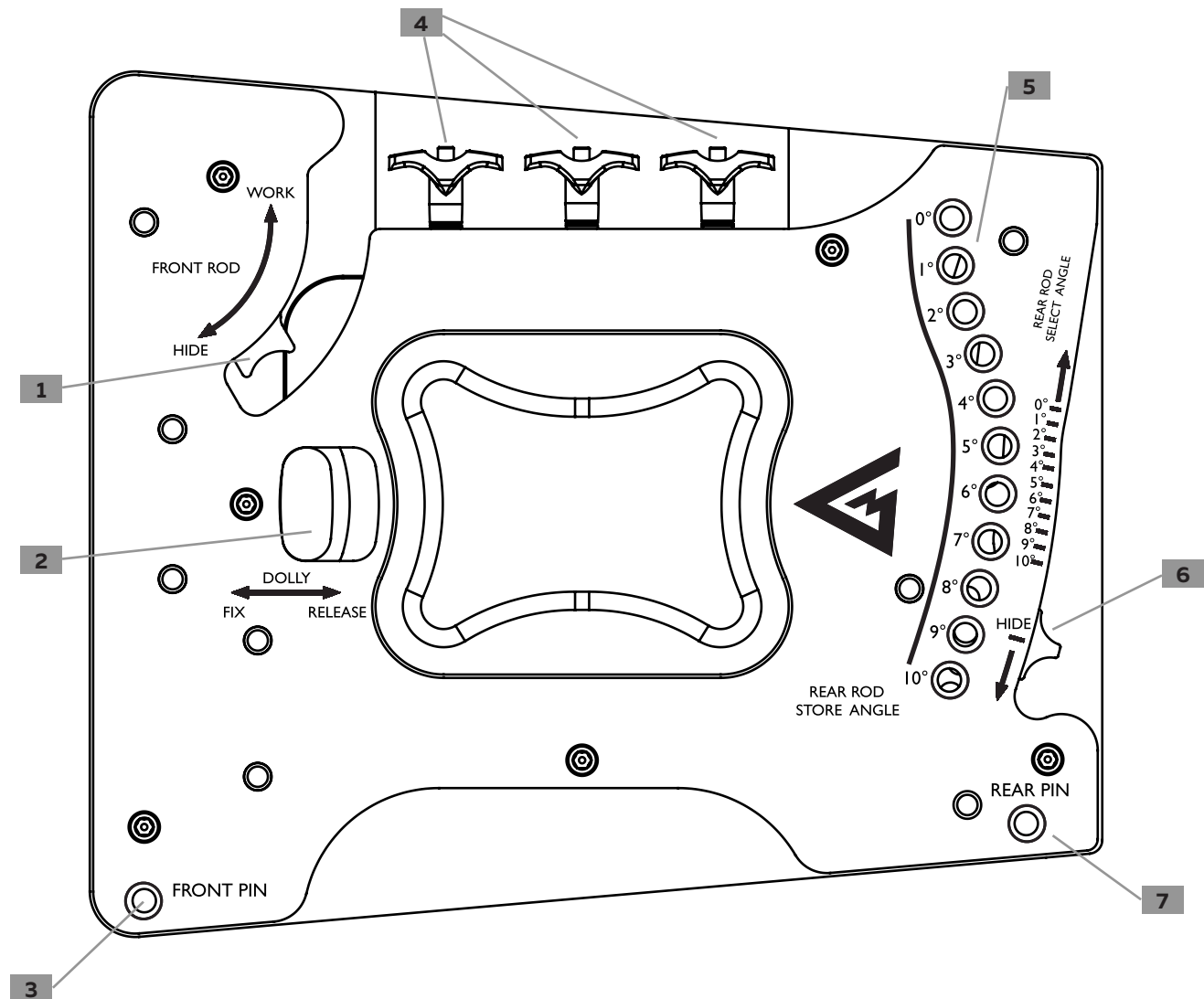
Rigging must be performed only by trained personnel following the established safety rules.

MAXIMUM WEIGHT RESTRICTIONS MUST BE FOLLOWED AT ALL TIMES!

MAKE SURE THE SUPPORT STRUCTURE IS CAPABLE OF HOLDING THE APPLIED WEIGHT WHILE SUSPENDING THE SYSTEM!

HORNET 12 rigging hardware operation guide

HORNET 12 rigging hardware



1. FRONT ROD HANDLE. Push the handle and rotate to move the front rod into connecting position, or to retract it for transportation.
2. DOLLY HANDLE. Push this handle backwards to release locks to attach the dolly to cabinet, or push the handle frontwards to secure dolly for transportation.
3. FRONT PIN SOCKET. Use VA-0018 pin to secure connection to bottom cabinet's front rod with this socket.
4. CONNECTION PIN STORAGE. Storage places for VA-0018 pin while transporting.

5. REAR ROD ANGLE SOCKETS. Use VA-0018 pin to secure the rear rod's angle after being selected with [6]. DO NOT SUSPEND CABINETS WITHOUT REAR ANGLE BEING SECURED WITH VA-0018 PIN!

6. REAR ROD ANGLE SELECTOR. Push and slide this handle to select the needed connection angle between cabinets. Secure the angle with [5]. DO NOT SUSPEND CABINETS WITHOUT REAR ANGLE BEING SECURED WITH VA-0018 PIN!

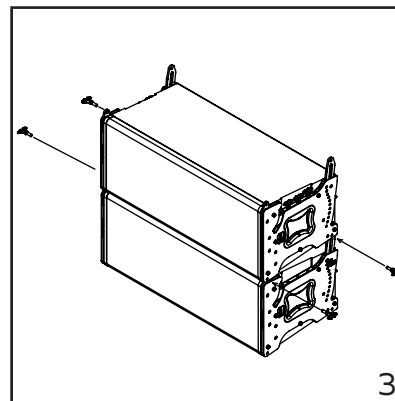
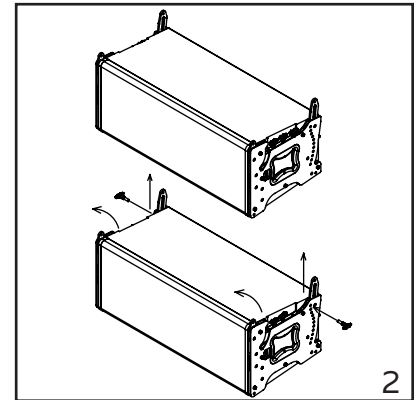
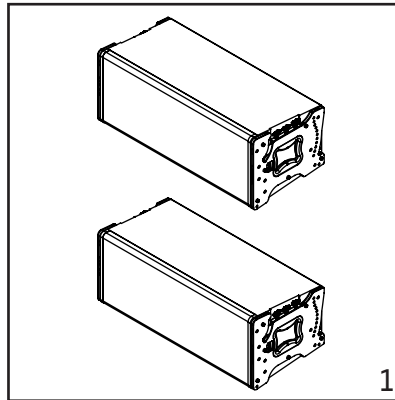
7. REAR PIN SOCKET. Use VA-0018 pin to secure connection to bottom cabinet's rear rod with this socket.

4.1. System operation - Rigging

Connecting two HORNET 12 modules

- Make sure six pieces of VA-0018 pins are available to perform the connection (included in each HORNET 12 module) (pic. 1).
- Pull out frontal links on the lower cabinet. Pull out, set the appropriate angle, and secure with VA-0018 pins rear links on the lower cabinet (pic. 2). For detailed instructions on operating HORNET 12 rigging hardware, refer to "4.1. System operation - Rigging / HORNET 12 rigging hardware operation guide" section, page 8.
- Attach two HORNET 12 modules together, and secure the connection with four VA-0018 pins (pic.3).

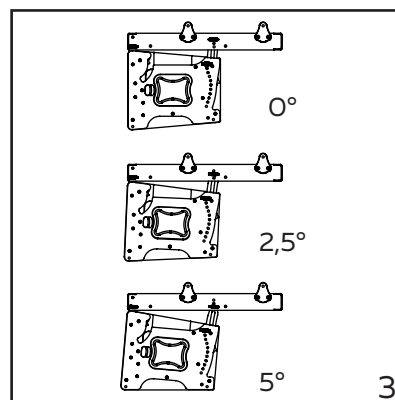
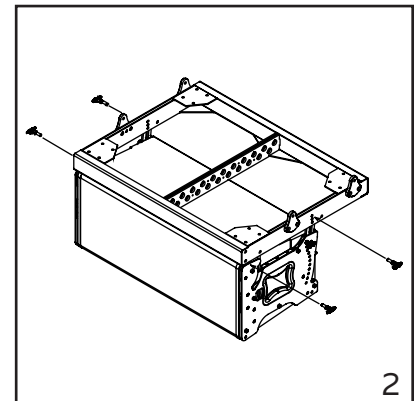
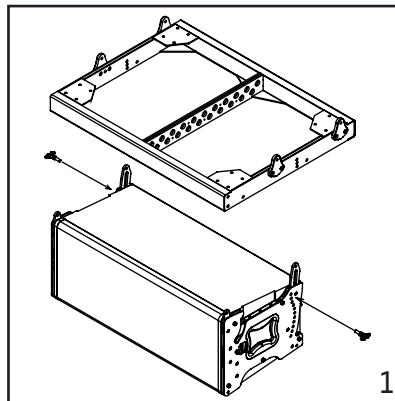
No more than 16 pcs of HORNET 12 may be assembled in a flown stack.



Connecting HORNET 12 module to HTF-01 flying frame

- Position elements as shown on pic.1. HTF-01 flying frame's side links should point upwards. Pull out frontal links. Pull out, set the appropriate angle, and secure with VA-0018 pins rear links on the lower cabinet. HORNET 12 links should be pointing upwards.
- Attach HORNET 12 cabinet to HTF-01 flying frame, and secure connection with four VA-0018 pins (pic. 2). For detailed instructions on operating HORNET 12 rigging hardware, refer to "4.1. System operation - Rigging / HORNET 12 rigging hardware operation guide" section, page 8.
- HTF-01 allows to attach HORNET 12 cabinet with 0°, negative 2,5° and 5° angle. ("0°" socket of the HORNET 12 module). (pic.3).

No more than 16 pcs of HORNET 12 may be assembled in a flown stack.



4.1. System operation - Rigging



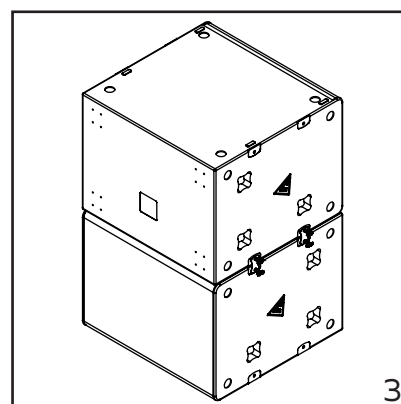
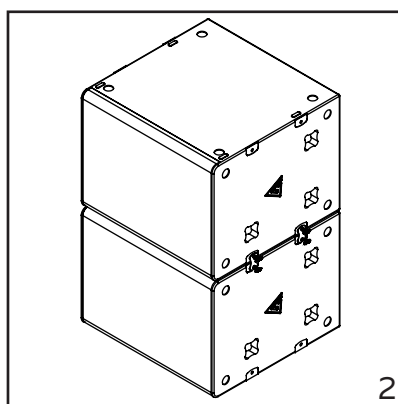
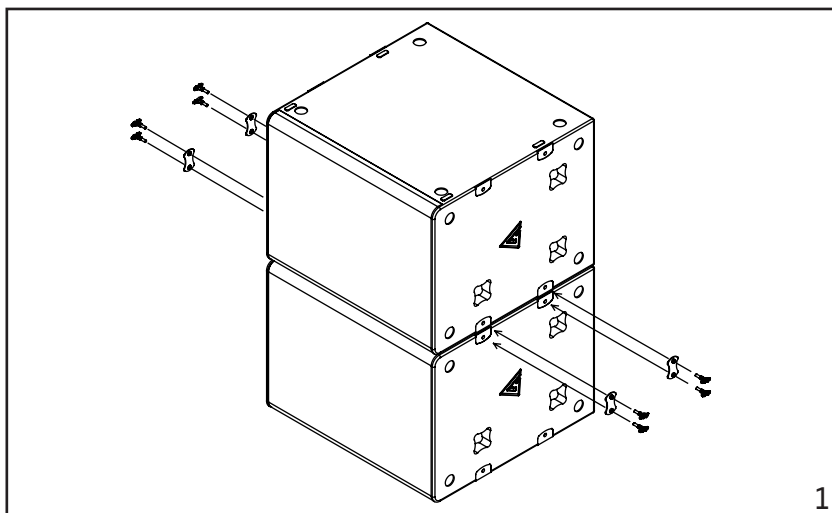
Connecting two HORNET SUB 18 subwoofers

Required accessories:

HSC-01 (part No. 0200150026) - 4 pcs

VA-0018 (part No. 0209000021) - 8 pcs

- Position two HORNET SUB 18 on top of one another, use guides for cabinet feet for correct positioning.
- Secure the stack with four HSC-01 subwoofer connectors, fixed with eight VA-0018 pins (pic. 1.).
- Two HORNET SUB 18 can be connected both facing same (pic. 2.) or opposite directions (pic. 3.). This allows for creation of subwoofer array of different directivities.



4.1. System operation - Rigging

Installing HORNET 12 onto HORNET SUB 18 for ground stack

Required accessories:

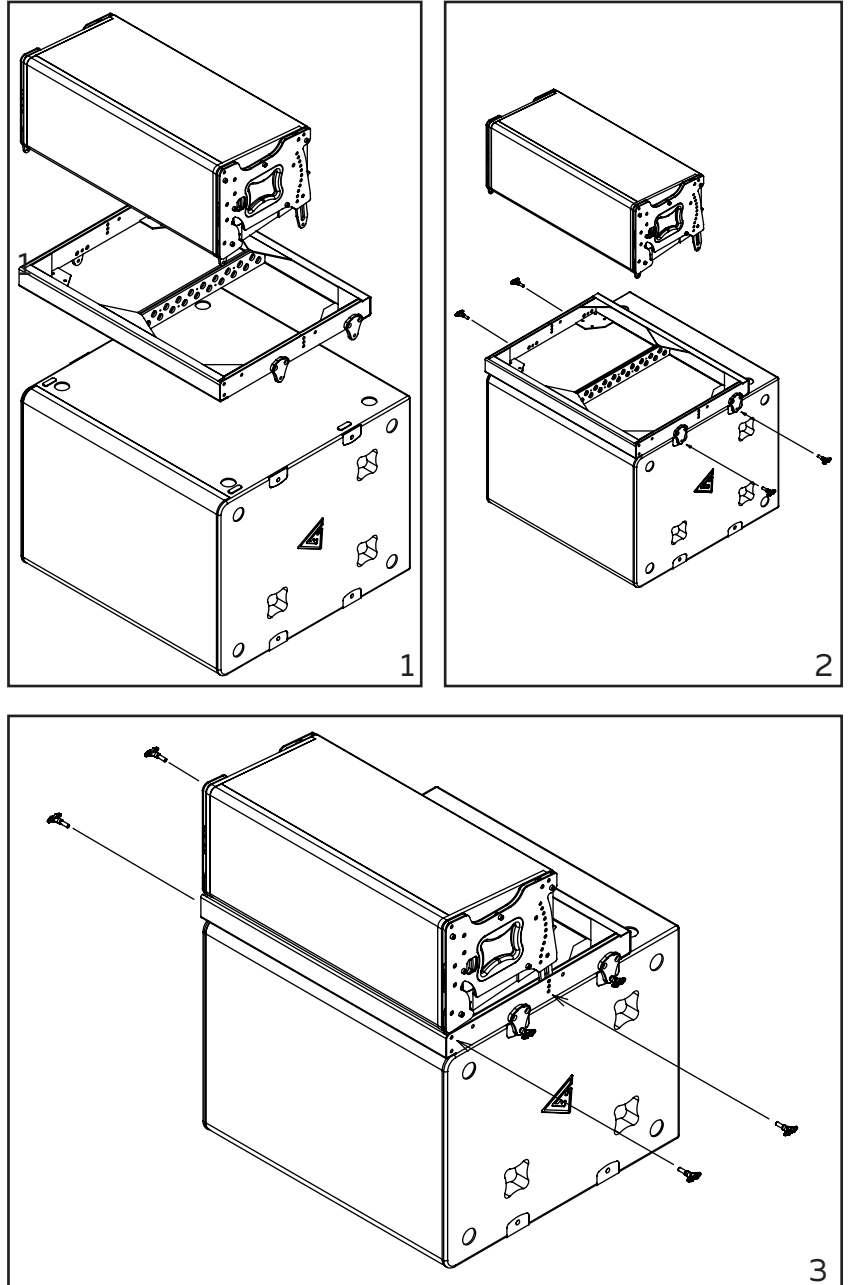
HTF-01 (part No. 0209000022) - 1 pcs

VA-0018 (part No. 0209000021) - 4 pcs

- Correct components' positions are shown on pic. 1. HTF-01 flying frame's side links should point downwards. Pull out, set the appropriate angle, and secure with VA-0018 pins rear links on the lower cabinet. HORNET 12 links should be pointing downwards.

- Install the HTF-01 flying frame onto the HORNET SUB 18 subwoofer and secure with four VA-0018 pins (pic. 2).

- Install the HORNET 12 module onto the HTF-01 flying frame and secure with four VA-0018 pins. (pic. 3).



4.1. System operation - Rigging

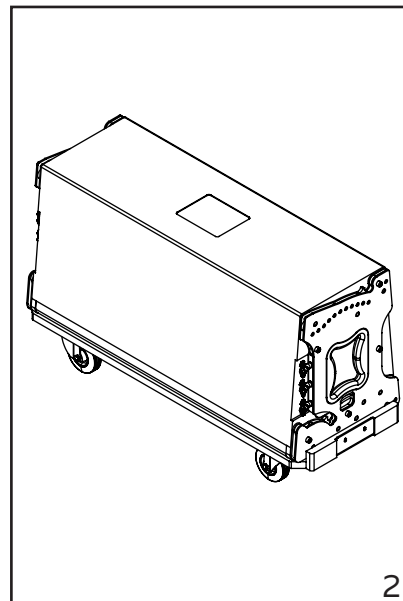
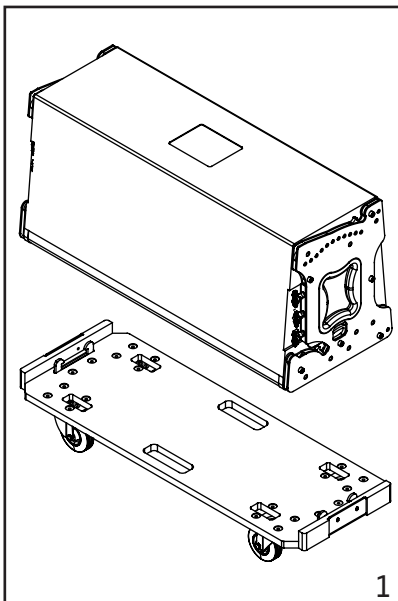


Attaching transportation cart to HORNET 12 module

Suggested accessories:

HORNET12-TB (part No. 0203500091)

- Correct positions of HORNET 12 and HORNET12-TC transportation cart (part. No 0203000001) are shown on pic. 1. HORNET 12's grill should be facing downwards. HORNET 12's dolly handle should be in "RELEASE" position.
- Place HORNET 12 on the HORNET12-TC. Pull HORNET 12's dolly handle into the "FIX" position (pic. 2.).
- HORNET12-TB transportation bag may be used for additional protection while transporting HORNET 12.

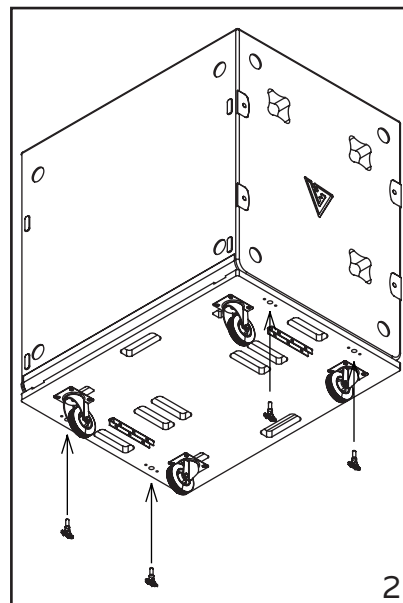
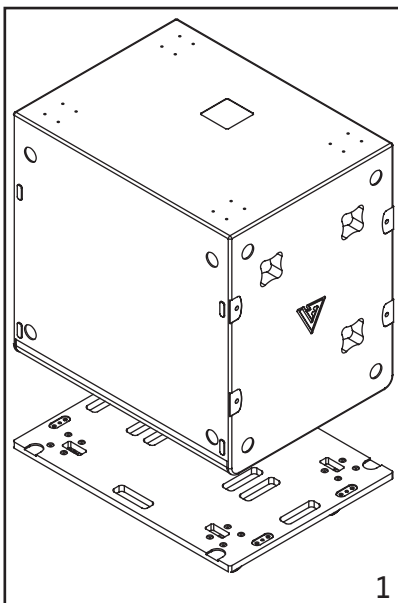


Attaching transportation cart to HORNET SUB 18 subwoofer

Suggested accessories:

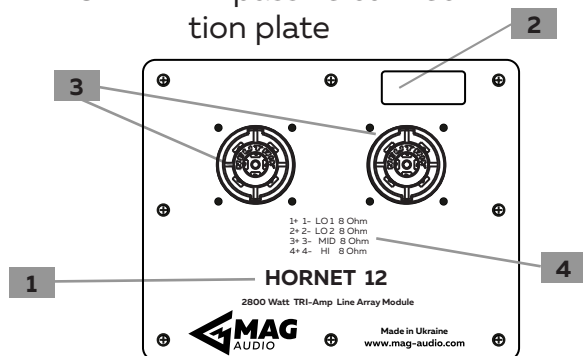
HORNETSUB18-TB (part No. 0203500092)

- Correct positions of HORNET SUB 18 and HORNETSUB18-TC transportation cart (part. No 0203000002) are shown on pic. 1. HORNET SUB 18's grill should be facing downwards.
- Place HORNET SUB 18 on the HORNETSUB18-TC. Secure the connection with four VA-0018 pins (pic. 2.).
- HORNETSUB18-TB transportation bag may be used for additional protection while transporting HORNET SUB 18.



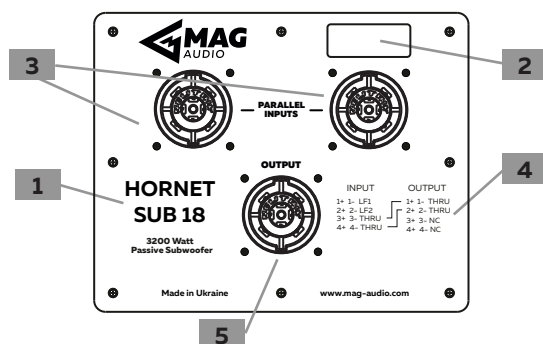
4.2. System operation – Passive connections

HORNET 12 passive connection plate



1. LABEL FIELD. Name of the system, along with its basic parameters is noted here.
2. SERIAL NUMBER FIELD. Sticker with the systems serial number is located here. NEVER REMOVE THE SERIAL FROM THE SYSTEM, AS IT IS IMMEDIATE WARRANTY VOID.
3. 8-PIN PARALLEL INPUTS. The pair of parallel Neutrik® Speakon NL8MPR connectors. Use these connectors to

HORNET SUB 18 passive connection plate



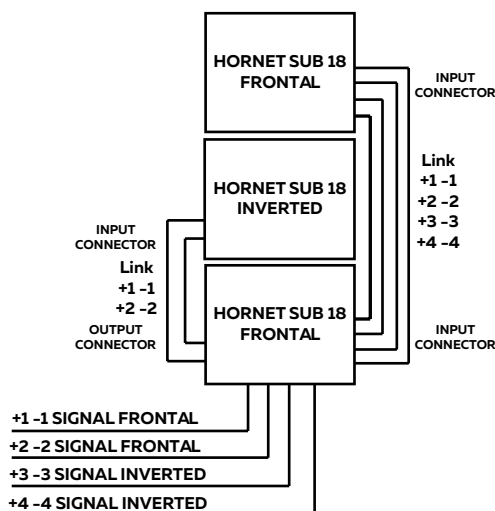
connect power amplifier and to feed the signal to the parallel system (optional).

4. CONNECTION INFORMATION. Consult this section for correct Speakon connector pins wiring.
5. 8-PIN OUTPUT. Neutrik® Speakon NL8MPR used to receive signal from linked-through +3 -3 +4 -4 Speakon pins (HORNET SUB 18 only).

HORNET SUB 18 low frequency array connection.

HORNET SUB 18's parallel inputs are feeding signal to transducers from pins +1 -1 and +2 -2. Signals on pins +3 -3 and +4 -4 are linked through the subwoofer, and can be received from pins +1 -1 and +2 -2 of the OUTPUT connector. This allows to connect the HORNET SUB 18 cardioid arrays with single 8-wire cable and interbetween 8-wire and 4-wire links only.

HORNET SUB 18 low frequency array connection diagram.



HORNET line array passive connections

Recommended HPF settings, suggested power amplifier ratings, and connection pins are found in table below:

Channel	Amplifier power	Amplifier impedance	Connection pins	Recommended HPF
HORNET 12 LO1	1000 - 2000 W	8 Ohm	+1 -1	60 Hz or higher, 18 dB/oct min
HORNET 12 LO2	1000 - 2000 W	8 Ohm	+2 -2	60 Hz or higher, 18 dB/oct min
HORNET 12 MID	400 - 800 W	8 Ohm	+3 -3	250 Hz or higher, 18 dB/oct min
HORNET 12 HI	200 - 400 W	8 Ohm	+4 -4	1200 Hz or higher, 18 dB/oct min
HORNET SUB 18 LF1	1600 - 3200 W	8 Ohm	+1 -1	30 Hz or higher, 18 dB/oct min
HORNET SUB 18 LF2	1600 - 3200 W	8 Ohm	+2 -2	30 Hz or higher, 18 dB/oct min

5. Standard contents

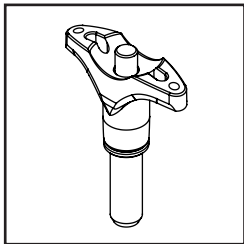


Please check complete complement of your HORNET line array systems upon receiving the package.
Standard contents of HORNET line array systems:

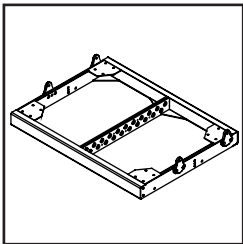
System	HORNET 12	HORNET SUB 18
	1 pcs - Hornet 12 - passive line array module	1 pcs - Hornet Sub 18 - passive line array subwoofer
	6 pcs - VA-0018 quick lock pin	4 pcs - VA-0018 quick lock pin
	1 pcs - Hornet 12 technical manual	1 pcs - Hornet Sub 18 technical manual
	1 pcs - Polyethylene bag	1 pcs - Polyethylene bag
	1 pcs - Carton Box	1 pcs - Carton Box

6. Accessories

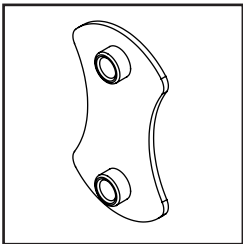
Various accessories are available for Hornet line array:



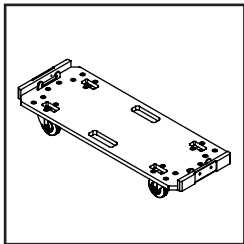
VA-0018 pin
Part No. 0209000021



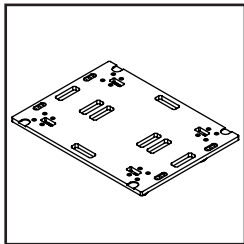
HTF-01 flying frame
Part No. 0209000022



HSC-01 Hornet Sub
18 connector
Part No. 0200150026



HORNET12-TC
transportation cart
Part No. 0209000019



HORNETSUB18-TC
transportation cart
Part No. 0203000002



HORNET12-TB - Hornet 12 transportation bag Part No. 0203500091
HORNETSUB18-TB - Hornet Sub 18 transportation bag Part No. 0203500092



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MANUFACTURER'S WARRANTY



1. By this warranty MAG Audio grants that all equipment manufactured under the MAG Audio trademark is free from defects in material, components and factory workmanship under the normal use and maintenance for the time as specified below.
2. All warranty repairs and maintenance of MAG Audio products shall be carried out at MAG Audio production sites or by MAG Audio authorized personnel at no cost for the product purchaser.
3. Warranty period for all the MAG Audio products is 36 months from the date of purchase.
4. Warranty repairs or maintenance will be performed only if a) MAG Audio product was purchased from an official MAG Audio distributor / dealer and b) warranty card with specified serial number, production date, realization date, vendor's signature and stamp is presented.
5. Warranty shall not cover following: damage caused by accident, misuse or failure to follow exploitation rules stated in technical manual; repairs performed by non-authorized personnel; mechanical damage caused by shipping accidents and normal tear and wear.
6. Warranty shall not be applicable to any product with defaced, removed, or modified serial number.
7. If your MAG Audio product needs repairs or maintenance, contact your official MAG Audio distributor / dealer. Please do not ship your MAG Audio product without prior authorization.

MANUFACTURER'S CONTACTS

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