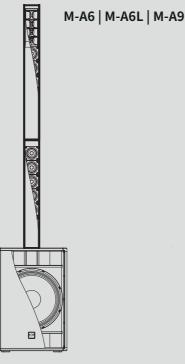


# M-LINE

**SELF-POWERED COLUMN SYSTEMS** 



**MANUAL** 

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# THANK YOU FOR CHOOSING **s)))e**° **AUDIOTECHNIK**.

We are happy to be the solution for your sound reinforcement needs with our professional loudspeaker systems. The system you have purchased is based on years of experience and leading expertise as a speaker manufacturer and speaker developer. It is our efficient and precise international engineering that guarantees a high quality and reliable product from **SE AUDIOTECHNIK**.

Please, take the time to carefully read this manual and follow its instructions. It will allow you to get the most out of your product under safe operating conditions and suggest some care instructions leading to long-term endurance. Keep this manual in a safe place for further reference!

If you find any mistakes or have further questions or suggestions, please contact us at info@se-audiotechnik.de or service@se-audiotechnik.com .

For more information about **SE AUDIOTECHNIK** products, visit our website **www.se-audiotechnik.de** (DE/EN) or **www.se-audiotechnik.com** (CN).

There you will also find the latest updates to manuals, firmware and technical documents for additional support.

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The content of this document is subject to change without prior notice to improve reliability, function, design or otherwise.

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## IMPORTANT **SAFETY INSTRUCTIONS**

#### GRAPHICAL SYMBOLS THAT MAY BE FOUND ON THE PRODUCT



The lightning bolt triangle is used to alert the user to the risk of electric shock.



The exclamation point triangle is used to alert the user to important operating or maintenance procedures and instructions.



The CCC mark indicates the conformity with the relevant Chinese directives for safety, health and environmental protection. The SRRC mark indicates the conformity with the relevant Chinese directives to obtain radio type approval certification.



Symbol indicating that the equipment is for indoor use only.



Symbol for conformity with Directive 2002/96/EC and Directive 2003/108/EC of the European Parliament, on waste electrical and electronic equipment (WEEE).



Symbol for important safety information related with the risk of electric shock.



Symbol to alert you about important operating or maintenance instructions.



Symbol for important concepts and information for a better understanding of the functioning of the product.



Symbol for practical tips and ideas useful to ensure the correct use of the product and improve its operation.



Symbol for an interdiction, which you must follow.



Symbol for confirmation. Example or guide for secure and correct setup.

Make sure that the result corresponds to what is described in this manual.

The products described in this manual have been engineered and manufactured to ensure your personal safety. However, **IMPROPER USE CAN RESULT IN POTENTIAL ELECTRICAL SHOCK, FIRE HAZARD AND OTHER HEALTH RISKS.** Always follow the basic precautions listed here to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following items in this chapter.



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#### **ELECTRICAL SAFETY PRECAUTIONS**



DO NOT EXPOSE ANY OF THIS EQUIPMENT TO RAIN OR MOISTURE, DRIPPING OR SPLASHING LIQUIDS. OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THIS APPARATUS.



TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT ATTEMPT TO OPEN ANY PART OF THE UNIT. THERE ARE NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO OUALIFIED SERVICE PERSONNEL.



EQUIPMENT DESCRIBED IN THIS MANUAL REQUIRE AC POWER SUPPLY. TO COMPLETELY DISCONNECT THEM FROM THE AC MAINS, DISCONNECT THE POWER SUPPLY CORD PLUG FROM THE AC RECEPTACLE. THE MAINS PLUG OF THE POWER SUPPLY CORD SHALL REMAIN READILY OPERABLE.

#### **OVERHEATING PRECAUTIONS**



DO NOT PLACE THIS PRODUCT IN DIRECT SUNLIGHT OR NEAR ANY HEAT SOURCE TO PREVENT OVERHEATING. PROTECTION MAY BE APPLIED AND POWER WILL BE REDUCED UNTIL THE TEMPERATURE RETURNS TO SAFE VALUES. THE SYSTEM MAY SHUT DOWN IF MAXIMUM OPERATING TEMPERATURE IS PERMANENTLY EXCEEDED. ALWAYS ENSURE PROPER AIR CIRCULATION AND PROVIDE SUFFICIENT SHADE. OVERHEATING MAY CAUSE DAMAGES AND LEADS TO POTENTIAL ELECTRICAL SHOCK, FIRE HAZARD AND OTHER HEALTH RISKS

#### NOISE EXPOSURE PRECAUTIONS



PRODUCTS DESCRIBED IN THIS MANUAL CAN RADIATE HIGH SOUND PRESSURE LEVELS (SPL), WHICH CAN LEAD TO IRREVERSIBLE HEARING DAMAGE. SE AUDIOTECHNIK RECOMMENDS TO RESPECT THE TIMES OF EXPOSURE TO HIGH SPL.

Noise level (dBA)	85	94	97	112	127
Max. recommended exposure time per 24 hours	8 hrs.	1 hr.	30 min.	56 sec.	1 sec.

Noise exposure recommendations according to US National Institute for Occupational Safety and Health (NIOSH).

#### IMPORTANT SAFETY INSTRUCTIONS

- 1. Keep these instructions and head all warnings.
- 2. Read and Follow thoroughly all instructions.
- 3. Use the product only for the purpose intended by the manufacturer.
- 4. Use the product only if you are familiar with the product and its application.
- 5. Observe applicable rules and regulations at the place of use.
- 6. Do not use this apparatus near water.
- 7. Clean only with a dry cloth. Disconnect the device from the AC outlet before cleaning.

  Do not use paint thinners, solvents, cleaning fluids, or chemical-impregnated wiping cloths.
- 8. Do not block any ventilation openings.
- 9. Install in accordance with the manufacturer's instructions.
- 10. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
- 11. Do not defeat the safety purpose of the grounding-type plug. A grounding-type plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 12. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- 13. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14. Use the mains plug to disconnect the apparatus from the mains.
- 15. If the equipment has been exposed to strong fluctuations in temperature (for example, after transport), do not switch it on immediately. Moisture and condensation could damage the equipment.
- 16. Keep away from objects which may be impaired by an external magnetic field. To avoid the damage of equipment such as computers, video monitors and magnetic data carriers, they should be located at least 1 meter away.
- 17. Only use safety pins, attachments, accessories and adapters specified and/or provided by the manufacturer.
- 18. Servicing must be done by qualified service personnel only. This is required when the product has been damaged in any way, such as liquid has been spilled or objects have fallen into the apparatus, power-supply cord and plug damages, the apparatus has been exposed to rain or moisture, does not operate as intended, or has been dropped.
- 19. Do not insert your fingers, hands or any other objects into any gaps or openings of the device.
- 20. When this product reaches its end of life, take it to a collection point designated by local authorities. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and environment.

#### SPECIFIC SETUP & OPERATION SAFETY INSTRUCTIONS

- 1. This product is **NOT** intended to be suspended on chains or ropes.
- 2. Do **NOT** use handles or other methods to suspend the system, serious injuries can be the result!
- 3. Make sure that the equipment is installed securely and cannot fall down.
- 4. Do not cover the metal panel at the rear side of the subwoofer, as it serves as a heat sink for the system amplifier. Keep a minimum distance of 50 cm to any other object for sufficient airflow.

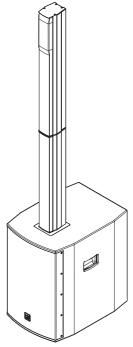
## **PACKAGE CONTENTS**

The packaging of the M-LINE SELF-POWERED COLUMN SYSTEM includes:

- 1 Top Column
- 1 Lower Column
- 1 Subwoofer
- 1 AC power cord with powerCON® connector
- 1 Safety Instruction/Manual link
- 1 QC PASS card
- 1 Warranty card

Please inspect your product packaging before unboxing it. If it has been damaged during shipping, unbox the product and check for any visual damage before using it. Notify the shipping company immediately and contact your SE AUDIOTECHNIK dealer or support center for help and assistance.

Finally, save the shipping carton as evidence for the possible claim, which can be requested only by you. We also recommend to keep all the packing materials and contents for transportation and storage.



**Figure 1.** M-Line column speaker system (exemplary representation).

## INTRODUCTION

The M-Line self-powered column speaker system with its elegant and unobtrusive design delivers great sound for speech and music reproduction at small and medium-sized venues.

The subwoofer features one 12" (M-A6), one 15" (M-A6L) or one 18" (M-A9) woofer in a vented enclosure. The polyurea coated plywood cabinet with a powder coated front grill builds the stable base for the columns and guarantees reliability and durability.

The aluminum column is split into two parts. The lower column consist of six high efficiency 3.5" low-midrange drivers for M-A6/M-6L and twelve high efficiency 3.5" low-midrange drivers for M-A9. The upper column comprises six high efficiency 3.5" low-midrange drivers and a multicell wave guide with four 0.5" compression drivers. The angled cells in the wave guide are optimized to cover near and far field, with a wide horizontal dispersion, matching perfectly with the 3.5" speakers.

M-A6 and M-A6L are designed as 3-way systems with integrated amplifiers and DSP. M-A9 has been developed as a 4-way system with integrated amplifier and DSP. All M-Line column speaker systems are therefore equipped with individual amplifiers for each frequency range. The amplifiers and the power supply unit (SMPS) are mounted on a specially developed die-cast aluminum heat sink for optimum heat management. The level of the subwoofer can be controlled separately from the system volume. A dedicated DSP software controls the crossover, limiter and a very low-noise DA-AD converter. In addition, the system provides Bluetooth® audio streaming including TWS.

## **FEATURES**

- Self-powered column system
- Plug & Play setup
- Low noise digital signal processing
- Bluetooth® audio streaming including TWS
- Suitable for PA, DJ or monitor applications
- Elegant and unobtrusive design
- Multicell wave guide, optimized for near and far field
- Aluminum column housing
- Polyurea coated subwoofer cabinet



Figure 2. M-Line column speaker system (M-A6).

## INTENDED USE

The M-Line column speaker systems are a professional plug-and-play sound reinforcement solution for indoor use. The modular structure and the possibility to set up a mono or stereo system, makes the M-Line column speaker systems suitable for PA, DJ, monitoring and install applications.

## M-LINE COLUMN SPEAKER SYSTEM FLEMENTS

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6 x 3.5" low-mid-range drivers 4 x 0.5" compression drivers in multicell configuration



6 x 3.5" (M-A6/M-A6L) low-mid-range drivers 12 x 3.5" (M-A9) low-mid-range drivers



12" (M-A6) subwoofer 15" (M-A6L) subwoofer 18" (M-A9) subwoofer



#### **Built-in amplifiers with DSP**

Audio inputs Master Volume and Sub Volume System settings Class-D amplification with DSP

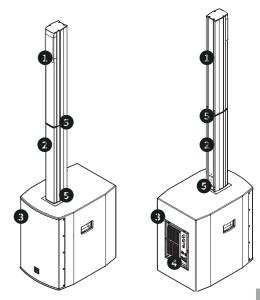


Figure 3. M-Line column speaker system elements.



#### **Multi-pin connectors**

Quick and easy setup without any additional wiring.

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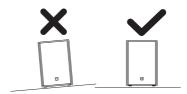
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# **QUICK START GUIDE**

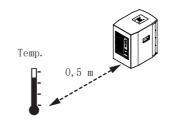
This guide briefly describes the main steps of setting up M-Line self-powered column speaker systems. Please note that the procedures are the same for all M-Line column systems.

# **PRECAUTIONS**

The subwoofer of the M-Line column speaker system must be placed on level ground, standing on its rubber feet.



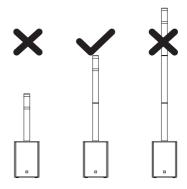
Ensure adequate cooling during operation with a minimum distance between 20 cm and **50 cm** between the subwoofer's back panel and other objects such as walls.



Always turn on the M-Line column speaker system last and turn it off first. This helps to prevent sudden loud sound exposure and possible hearing damages.

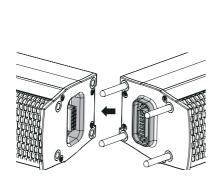


Never assemble the system with other than the intended two M-Line columns.

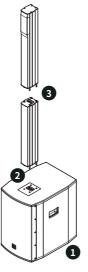


## **ASSEMBLY**

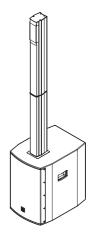
- Place the subwoofer at the desired location.
- 2 Slide the metal pins of the lower column into the four corresponding slots on the top of the subwoofer. The multi-pin connectors are automatically connected.
- 3 Attach the upper speaker column to the lower speaker column as described in step 2.



**Figure 4.**M-Line column speaker system pin connectors.



**Figure 5a.**M-Line column speaker system assembly.
Step 2 and step 3.



**Figure 5b.**Assembled
M-Line column speaker system.



Do not wobble the columns too strongly during assembly or disassembly, as this may cause damage to the product.



The metal pins and their slots are precisely fitting. You might find it hard to plug and unplug the columns at first, but this will become easier over time.

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## MINIMUM AUDIENCE DISTANCE

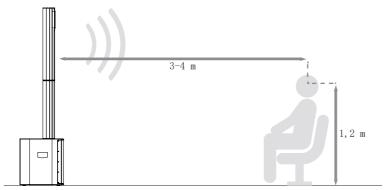


Figure 6. M-Line column speaker system minimum distance to audience.



Column systems are designed to have homogeneous sound radiation, but due to the lines of the columns, a minimum distance of 3-4 m from the audience is recommended.

## **USER INTERFACE**

## RFAR PANFI

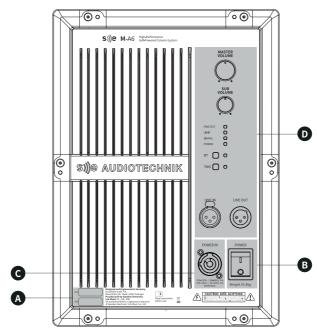


Figure 7. M-Line column speaker system rear panel.

#### A PRODUCT SERIAL NUMBER AND FIRMWARE VERSION

This code helps to identify your product and its firmware. This code is also required for customer support.

## **B** POWER SWITCH

Turns the system on/off.



## C powerCON° SOCKET

Plug in the mains cable here. To lock the connector, twist it clockwise.

### **D** CONTROL PANEL: CONNECTIVITY, STATUS AND INDICATORS

Audio input, Audio output, level, BLUETOOTH® AUDIO pairing and LED status indicators.



The operating elements are identical for all M-Line column speaker systems. The common elements of the user interface are explained in this section.

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## REAR PANEL: CONNECTIVITY

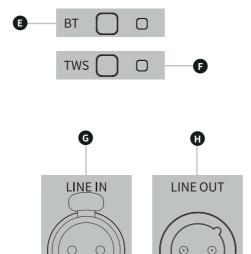


Figure 8. M-Line column speaker system connectivity.

E BLUETOOTH® 5.0 AUDIO

Enables pairing of Bluetooth® devices.

**F** TWS

True Wireless Stereo Enables pairing of two M-Line column systems. G LINE IN

0

Balanced input connector Line level input.

LINE OUT

Balanced output connector Line level output.



Please note that the connections may vary depending on the model. Detailed information about the connector type can be found in the technical data.

## REAR PANEL: STATUS AND INDICATORS

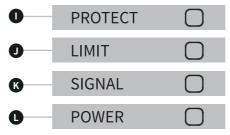


Figure 9. M-Line column speaker system status and indictaors.

#### PROTECT

The PROTECT LED lights up permanently if the system has switched in protection mode. The amplifier output is automatically muted. After reaching normal operation conditions, the unit returns to normal operation mode.

## **1** LIMIT

Lights up when the speaker system is close to its max. level. To protect the system, excessive signal level is reduced by DSP limiter processing.

#### K SIGNAL

Lights up when an audio signal is present at the input.

#### POWER

Lights up when the system is connected to mains and switched on.



**LIMIT:** If the LIMIT LED lights up for longer time, reduce the volume level. Using the system in constant limiting results in compressed sound impression. No damage will happen, but the system might shut down sooner or later due to overheating.



**PROTECT:** If the system does not get back to normal operation even after waiting for about 10 Minutes, shut the system off and on again.



**PROTECT:** If the system jumps into protection mode immediately after being switched on, there is internal damage and the system must be checked by the official SE AUDIOTECHNIK service.

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# **REAR PANEL: CONTROLS**

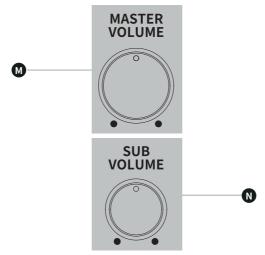


Figure 10. M-Line column speaker system control panel.



Adjusts the total system volume.

## N SUB VOLUME

Adjusts the subwoofer volume relative to the main volume.

## **WIRING**

M-Line self-powered column speaker systems use powerCON® connectors for the mains power. The following figure shows how to plug-in and connect these wires.

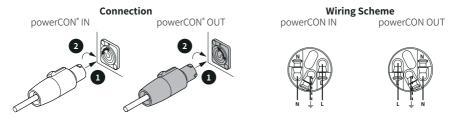


Figure 11. PowerCON® plug-in and wiring scheme.

- 1 Plug in the powerCON® cable connector into the powerCON® chassis connector.
- 2 Turn the powerCON® cable connector clockwise until it is locked.

Additionally, they use XLR-3 connectors to input and pass audio signals. They follow the plug-in and configuration scheme below:

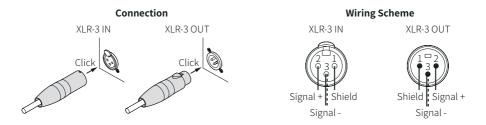
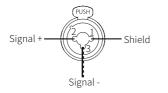
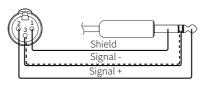


Figure 12. XLR-3/TRS plug-in and wiring scheme.





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## **BLUETOOTH®**

M-Line column speaker systems provide Bluetooth® connectivity for wireless audio streaming. You can follow the outlined steps to establish a Bluetooth® connection with your compatible device.

- 1 POWER ON the column system. The BLUETOOTH\* LED emits a constant light indicating that the module is operational.
- Press and hold the pairing button "BT" for at least 3 seconds.

  As soon as the module is ready for pairing, the BLUETOOTH® LED starts flashing. The time frame for pairing is approximately 90 seconds.
- 3 Check your audio source device's available Bluetooth\* connections and initiate pairing. When successfully paired the **BLUETOOTH\* LED** emits a constant light again.



Figure 13. M-Line column speaker system Bluetooth\* pairing.



Each time you power on the M-Line column speaker system, it will try to re-establish a connection with the previous paired device.



Make sure that your device is compatible with Bluetooth® v5. Profiles: Profile: A2DP v1.3.1 , AVRCP v1.6

A2DP codec : SBC, aptX, aptXHD

## M-LINE COLUMN SPEAKER SYSTEM

## BT-STEREO-SETUP

M-Line column speaker systems can be configured as a stereo system. By using two column systems - on both sides of the stage to address the audience, on stage as a side-fill for the performers, or in installation applications such as bars, entertainment venues and museums - you can benefit from the audio sensation that stereo speaker systems are able to achieve. M-Line column speaker systems are equipped with TWS enabling an easy configuration with Bluetooth®.



Figure 14. M-Line column speaker system Bluetooth\* / TWS pairing.

- 1 Place both subwoofers at the desired locations and add the column modules to each one as described in the assembly chapter.
- 3 Switch the POWER switch to its ON position.
- 5 To pair two column systems, press and hold the TWS button on each unit until the LED starts flashing. When pairing is complete, the respective TWS LED lights up continuously. To end the pairing press and hold the TWS button on a speaker until the TWS LED turns off.
- 2 Connect the blue end of a powerCON® cable into the POWER IN socket on each unit's rear side panel and connect both cables to the mains outlet.
- 4 Decide on one column system being the master. This column system will reproduce the left channel of a stereo BT-Signal.
- 6 Establish a Bluetooth® connection between the "Master" column system and a Bluetooth® audio source. Only one of the systems can be connected to a Bluetooth source in TWS mode. This system plays the left stereo channel and the other one is reproducing the right stereo channel.



Turn down the respective level when you plug in or unplug any audio signal cable. Always turn down the MAIN LEVEL before powering on or powering off M-Line column systems. Turning down the respective level is also recommended when establishing a BT/TWS connection. This helps to prevent sudden loud sound exposure and possible hearing damages.

#### **Resetting BT and TWS**



To reset BT and TWS press the two buttons BT and TWS simultaneously for longer than 4 seconds. The system will then terminate all existing Bluetooth® and TWS connections and deletes the pairing data. If TWS mode was used, reset should be done on both systems.

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#### SPECIFICATIONS M-A6

**ACOUSTICAL** 

ACOUSTICAL	
Frequency range (-3 dB) <sup>1</sup>	50 Hz - 17 kHz
Frequency range (-10 dB) <sup>1</sup>	40 Hz - 20 kHz
Coverage angles (-6 dB) [H x V]	130° x 20°
Maximum Peak SPL <sup>2</sup>	137 dB
Continuous max. SPL <sup>2</sup>	124 dB
System type	3-way, self-powered
Crossover frequency	100 Hz (LF), 130 Hz (MF), 2.5 kHz (HF)
Transducers	1x 12" woofer with 2.5" voice coil 12x 3.5" low-mid driver with 1" voice coil 4x 0.5" compression driver with 1" voice coil
Enclosure type	Subwoofer: bass reflex cabinet Columns (LF/MF): closed (sealed) cabinet Columns (HF): multicell waveguide
AMPLIFICATION	
Туре	Class-D with SMPS
Total power <sup>3</sup>	1000 W
Output power per channel 4	LF: 500 W, MF: 250 W, HF: 250 W
Protection	Short circuit, Overheating, Overcurrent, Limiter
Indicators	ON (green), SIGNAL (green), LIMIT (red), PROTECT (red), BT PAIRING (blue), BT-TWS (blue)
Connectors	Line input: 1x XLR female, balanced Line onput: 1x XLR male, balanced, buffered Power connector: powerCON®
Wiring	Pin layout XLR: Pin 2: Signal+; Pin 3: Signal-; Pin 1: Shield Pin layout powerCON*: Pin N: Neutral; Pin L: Conductor; Pin E: Earth, Ground
Operating voltage range	220 – 240 VAC, 4A; 100-120 VAC, 8A; 50/60 Hz; 800 W max.
Input sensitivity	0 dBu
DSP	48 kHz/24 bit with extended dynamics, Processing latency: 1.1 ms
Connectivity	Bluetooth® Version 5.0 Profile: A2DP v1.3.1 (SBC, aptX, aptXHD), AVRCP v1.6
Processing	Crossover, Limiter, EQ, Level, low noise AD/DA
User controls	Power: On/Off switch System Level: Main Level; Subwoofer Level BT: Bluetooth* Pairing button TWS: Bluetooth* TWS Pairing button (pairing with second

SPL / 1 m, half space, pink noise, 12 dB crest factor, +10dBu input level
 Total power value is the sum of all individual channel output power

<sup>&</sup>lt;sup>4</sup> According to EIA-426B Standard

MECHANICAL	
Product dimensions	534 x 360 x 500 mm subwoofer
[H x W x D]	875 x 103 x 130 mm top column
(incl. connector pins)	713 x 103 x 130 mm lower column
	Total system height: 2030 mm
Net weight	23.3 kg subwoofer, 6.8 kg top column,
	5.7 kg lower column / System: 35.8 kg
Packaging dimensions	600 x 460 x 638 mm subwoofer
[H x W x D]	950 x 395 x 226 mm columns
Total weight	26.4 kg subwoofer, 15.3 kg columns
Cabinet	Subwoofer: Plywood
	Columns: Aluminum
	Column covers and connectors: ABS, Nylon, stainless steel
Cabinet finishing	Black polyurea coating; powder coating
Grille	Powder coated perforated steel
Hardware	2 embedded handles in cabinet, rubber feet
Rigging	4-point connector system
ACCESSORIES	
M-A6 TD	Transport Dolly
M-A6 FC	Flightcase
M-A6 TBC	Padded nylon transport bag for columns
M-A6 TBS	Padded nylon transport bag for subwoofer

Table 1. M-Line M-A6 technical specifications.

# MECHANICAL DRAWINGS M-A6

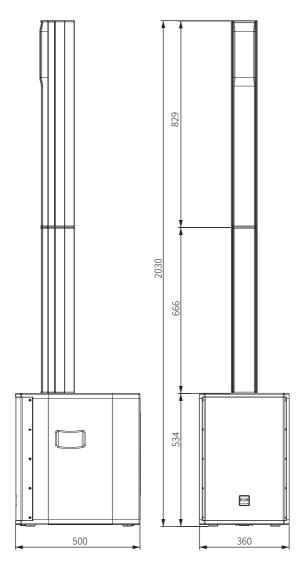
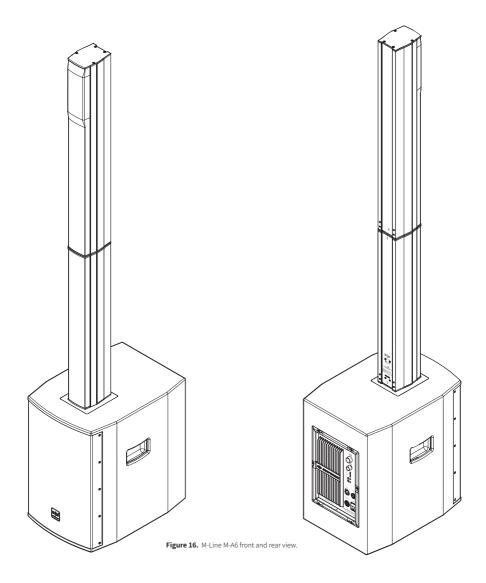


Figure 15. M-Line M-A6 dimensions (mm).



#### SPECIFICATIONS M-A6L

**ACOUSTICAL** 

ACCOSTICAL	
Frequency range (-3 dB) <sup>1</sup>	48 Hz - 17 kHz
Frequency range (-10 dB) <sup>1</sup>	38 Hz - 20 kHz
Coverage angles (-6 dB) [H x V]	130° x 20°
Maximum Peak SPL <sup>2</sup>	138 dB
Continuous max. SPL <sup>2</sup>	125 dB
System type	3-way, self-powered
Crossover frequency	100 Hz (LF), 130 Hz (MF), 2.5 kHz (HF)
Transducers	1x 15" woofer with 3" voice coil 12x 3.5" low-mid driver with 1" voice coil 4x 0.5" compression driver with 1" voice coil
Enclosure type	Subwoofer: bass reflex cabinet Columns (LF/MF): closed (sealed) cabinet Columns (HF): multicell waveguide
AMPLIFICATION	
Туре	Class-D with SMPS
Total power <sup>3</sup>	1000 W
Output power per channel 4	LF: 500 W, MF: 250 W, HF: 250 W
Protection	Short circuit, Overheating, Overcurrent, Limiter
Indicators	ON (green), SIGNAL (green), LIMIT (red), PROTECT (red), BT PAIRING (blue), BT-TWS (blue)
Connectors	Line input: 1x XLR female, balanced Line onput: 1x XLR male, balanced, buffered Power connector: powerCON®
Wiring	Pin layout XLR: Pin 2: Signal+; Pin 3: Signal-; Pin 1: Shield Pin layout powerCON*: Pin N: Neutral; Pin L: Conductor; Pin E: Earth, Ground
Operating voltage range	220 – 240 VAC, 4A; 100-120 VAC, 8A; 50/60 Hz; 800 W max.
Input sensitivity	0 dBu
DSP	48 kHz/24 bit with extended dynamics Processing latency: 1.1 ms
Connectivity	Bluetooth® Version 5.0 Profile: A2DP v1.3.1 (SBC, aptX, aptXHD), AVRCP v1.6
Processing	Crossover, Limiter, EQ, Level, low noise AD/DA
User controls	Power: On/Off switch System Level: Main Level; Subwoofer Level BT: Bluetooth* Pairing button TWS: Bluetooth* TWS Pairing button (pairing with second system for stereo Bluetooth*)
<sup>1</sup> Half space, -10 dBu / 7 m, SUB volume cent	er position

Half space, -10 dBu / 7 m, SUB volume center position
 SPL / 1 m, half space, pink noise, 12 dB crest factor, +10dBu input level
 Total power value is the sum of all individual channel output power

<sup>&</sup>lt;sup>4</sup> According to EIA-426B Standard

MECHANICAL	
Product dimensions	639 x 435 x 610 mm subwoofer
[H x W x D]	875 x 103 x 130 mm top column
(incl. connector pins)	713 x 103 x 130 mm lower column
	Total system height: 2135 mm
Net weight	32.9 kg subwoofer, 6.8 kg top column,
	5.7 kg lower column / <b>System: 45.4 kg</b>
Packaging dimensions	715 x 540 x 743 mm subwoofer
[H x W x D]	950 x 395 x 226 mm columns
Total weight	37 kg subwoofer, 15.3 kg columns
Cabinet	Subwoofer: Plywood
	Columns: Aluminum
	Column covers and connectors: ABS, Nylon, stainless steel
Cabinet finishing	Black polyurea coating; powder coating
Grille	Powder coated perforated steel
Hardware	2 embedded handles in cabinet, rubber feet
Rigging	4-point connector system
ACCESSORIES	
M-A6L TD	Transport Dolly
M-A6L FC	Flightcase
M-A6L TBC	Padded nylon transport bag for columns
M-A6L TBS	Padded nylon transport bag for subwoofer

Table 2. M-Line M-A6L technical specifications.

MECHANICAL DRAWINGS M-A6L

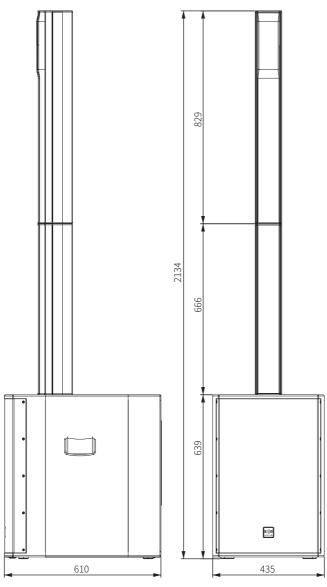
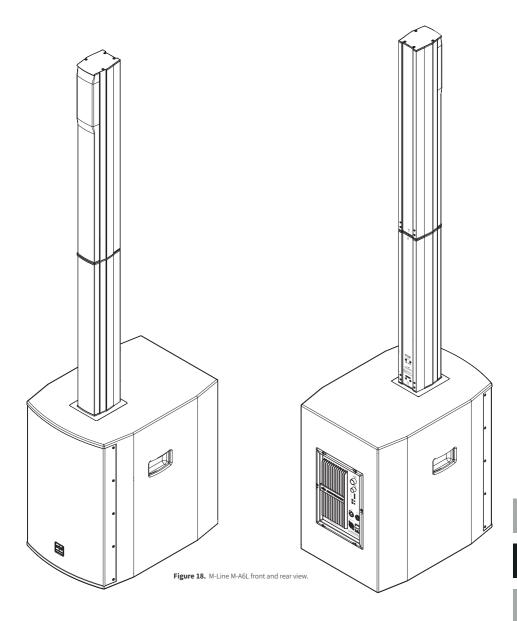


Figure 17. M-Line M-A6L dimensions (mm).



#### **SPECIFICATIONS M-A9**

**ACOUSTICAL** 

Frequency range (-3 dB) <sup>1</sup>	45 Hz - 17 kHz
Frequency range (-10 dB) <sup>1</sup>	35 Hz - 20 kHz
Coverage angles (-6 dB) [H x V]	130° x 20°
Maximum Peak SPL <sup>2</sup>	139 dB
Continuous max. SPL <sup>2</sup>	129 dB
System type	4-way, self-powered
Crossover frequency	150 Hz (LF), 130 Hz to 400 Hz (LMF), 130 Hz to 2.5 kHz (MF), 2.5 kHz (HF)
Transducers	$1 \times 18$ "woofer with 4" voice coil $12 \times 3.5$ " low-mid driver with 1" voice coil $6 \times 3.5$ " mid driver with 1" voice coil $4 \times 0.5$ " compression driver with 1" voice coil
Enclosure type	Subwoofer: bass reflex cabinet Columns (LMF/MF): closed (sealed) cabinet Columns (HF): multicell waveguide
AMPLIFICATION	
Туре	Class-D with Double-SMPS
Total power <sup>3</sup>	2000 W
Output power per channel 4	LF: 1000 W, LMF: 500 W, MF: 250 W, HF: 250 W
Protection	Short circuit, Overheating, Overcurrent, Limiter
Indicators	ON (green), SIGNAL (green), LIMIT (red), PROTECT (red), BT PAIRING (blue), BT-TWS (blue)
Connectors	Line input: 1x XLR female, balanced Line onput: 1x XLR male, balanced, buffered Power connector: powerCON®
Wiring	Pin layout XLR: Pin 2: Signal+; Pin 3: Signal-; Pin 1: Shield Pin layout powerCON*: Pin N: Neutral; Pin L: Conductor; Pin E: Earth, Ground
Operating voltage range	220 – 240 VAC, 4A; 100-120 VAC, 8A; 50/60 Hz; 1200 W max.
Input sensitivity	0 dBu
DSP	48 kHz/24 bit with extended dynamics Processing latency: 1.1 ms
Connectivity	Bluetooth® Version 5.0 Profile: A2DP v1.3.1 (SBC, aptX, aptXHD), AVRCP v1.6
Processing	Crossover, Limiter, EQ, Level, low noise AD/DA
User controls	Power: On/Off switch System Level: Main Level; Subwoofer Level BT: Bluetooth® Pairing button TWS: Bluetooth® TWS Pairing button (pairing with second system for stereo Bluetooth®)
1 Half space -10 dBu / 7 m SUB volume cent	ernosition

Half space, -10 dBu / 7 m, SUB volume center position
 SPL / 1 m, half space, pink noise, 12 dB crest factor, +10dBu input level
 Total power value is the sum of all individual channel output power
 According to EIA-426B Standard

MECHANICAL	
MECHANICAL Product dimensions app	rox. 630 x 530 x 660 mm Subwoofer
[H x W x D]	840 x 120 x 193 mm Top Column
(incl. connector pins)	811 x 120 x 180 mm Lower Column
	Total system height: 2190 mm
Net weight	37.4 kg Subwoofer
	8 kg Top Column
	9.3 kg Lower Column
	41.6 kg Flight Case
Packaging dimensions [H x W x D]	Flight Case: 889 x 576 x 913
Total weight	54.7 kg
Transport weight	96.3 kg
Cabinet	Subwoofer: Plywood
	Columns: Aluminum
	Column covers and connectors: ABS, Nylon, stainless steel
Cabinet finishing	Black polyurea coating; powder coating
Grille	Powder coated perforated steel
Hardware	2 embedded handles in cabinet, rubber feet
Rigging	4-point connector system
ACCESSORIES	
M-A9 TD	Transport Dolly
M-A9 FC	Flightcase
M-A9 TBC	Padded nylon transport bag for columns
M-A9 TBS	Padded nylon transport bag for subwoofer

Table 3. M-Line M-A9 technical specifications.

# MECHANICAL DRAWINGS M-A9

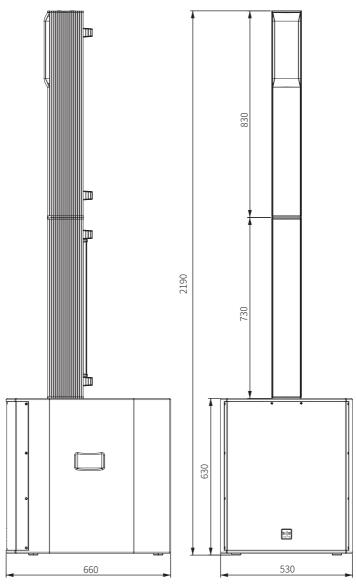
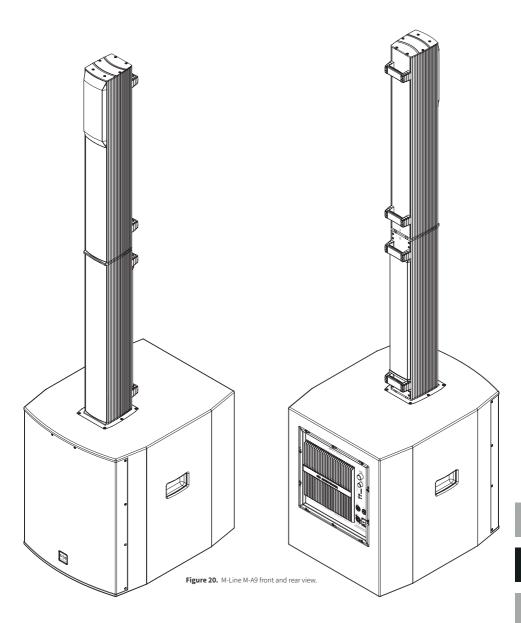


Figure 19. M-Line M-A9 dimensions (mm).



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## MANUFACTURER'S **DECLARATIONS**

#### WARRANTY

SE AUDIOTECHNIK gives a warranty of 4 years on SE AUDIOTECHNIK products. The warranty period begins with the purchasing date. The warranty applies to material or production defects that occur. Defective components or products will be repaired or replaced free of charge by SE AUDIOTECHNIK at its own sole and exclusive discretion during the warranty period.

#### NOTE

SE AUDIOTECHNIK does not guarantee the uninterrupted and fault-free operation of the products.

#### The warranty does not apply:

- For wear parts and natural abrasion.
- For damage, defects or malfunctions caused by improper use or use for other than the intended purpose.
- For damage, defects and malfunctions caused by the use of force or environmental conditions
- For unauthorized repair efforts.

#### REQUESTING WARRANTY SERVICES

The request for warranty service can be submitted to SE AUDIOTECHNIK or to the dealer from whom the SE AUDIOTECHNIK products were purchased.

In order to claim warranty service, you must provide proof of purchase and allow SE AUDIOTECHNIK to examine the warranty claim (e.g. sending in the products, examination at an authorized partner). Without proof of purchase, the provision of a warranty service can be rejected.

#### IMPORTANT NOTE

Your statutory warranty rights are not affected by this warranty. Furthermore, this warranty has no influence on any agreements you may have concluded with a dealer.

#### LIMITATION OF LIABILITIES

SE AUDIOTECHNIK is not liable for personal injury, material damage or claims resulting from inappropriate, dangerous or incorrect use of the products.

#### DECLARATION OF CONFORMITY

This device complies with the essential requirements and other relevant specifications of the directives of the countries in which the product is sold. The detailed declaration and the list of these directives and harmonized standards are provided on the website https://se-audiotechnik.de or https://se-audiotechnik.com.

Included are all product variants, as long as they comply with the original technical design and have not been subsequently modified mechanically, electrically or in their original condition.

#### CORRECT DISPOSAL OF PRODUCTS (ELECTRICAL WASTE)

SE AUDIOTECHNIK products must not be disposed of with other waste at the end of their service life to avoid possible harm to the environment or human health.

Private users can contact either the dealer from whom they purchased the products or the local authority for information on environmentally friendly disposal. Commercial users can contact their supplier, if they have any questions about disposal.

#### **DECLARATION ON WEEE POLICY**

SE AUDIOTECHNIK products are designed and manufactured with high quality materials and components that are intended to be recyclable and/or reusable.

SE AUDIOTECHNIK is WEEE registered in accordance with WEEE policy.

#### LICENSES AND COPYRIGHT

SE AUDIOTECHNIK products may directly or indirectly contain software that is necessary or complementary for their use. These software components may be SE AUDIOTECHNIK own developments or licensed and open-source products and solutions or a combination of the mentioned. In the case of open-source licenses, SE AUDIOTECHNIK will provide a copy of the source code and the full text of the corresponding license upon request in accordance with the license terms. Excluded from this and protected by copyright are own and licensed software solutions and software components.

#### NAMES AND CONCENTRATIONS OF HAZARDOUS SUBSTANCES IN PRODUCTS

Component Name	Target Component	hazardous substance					
		Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent	Polybro- minated	Polybrominated Diphenyl Ethers (PBDE)
Speaker	Frame, T-yoke, diaphragm, voice coil	0	0	0	0	0	0
	Terminal	×	0	0	0	0	0
Enclosure	Wooden or aluminum cabinet, front grille	0	0	0	0	0	0
Circuit Board	Printed circuit board, electronic components on the board, internal connection wires, copper footposts	×	0	0	0	0	0
Power Cable	Power cable	×	0	0	0	0	0
Accessories	Manual, packaging, plastic bags	0	0	0	0	0	0

This table is prepared according to the requirements of SJ/T 11364.

O:Indicates that the hazardous substance concentration in all homogeneous materials of this component is below the limits stipulated by GB/T 26572.

×: Indicates that the concentration of the hazardous substance in at least one of the homogeneous materials of this component exceeds the limits stipulated by GB/T 26572.



Electrical and electronic products sold in the People's Republic of China will bear the "Environmental Protection Use Period" (EPuP) symbol. The number in the circle represents the normal environmental service life of the product.

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