AUDIOCENTER

Dynamic Audio Solutions

BrainCore™

Technology Inside

User's Manual

MA+ SERIES

Portable Active DSP-controlled Loudspeaker

Revision A0-2025-07

Contents

Product Introduction	02
Safety precautions	02
Technical Features	04
Back panel control and functions	05
Display function introduction	06
Product Application Sample of MA+ series	09
Dimension	11
Installation guidance	12
Specification	13
Trouble Shooting	14

◆ Product Introduction

The MA+ Series is the latest upgraded version from Audiocenter, building upon the renowned MA Series. It retains the lightweight design, premium acoustic performance, and excellent sound quality of its predecessor while introducing breakthrough innovations in functionality and design. A new 2-inch TFT display enables users to access a variety of audio effect programs with a single click, offering enhanced personalization, interactivity, and flexibility.

◆ Safety precautions ⚠

When you set up, install and use the MA+ series, please follow the following safety measures strictly:

- There can be danger in any step during hanging installation. Everyone should pay attention to personal safety. All purchasers of Audiocenter should be professional people qualified to conduct the work related to such equipment.
- We strongly suggest the users pay full attention to local rules, regulations and laws.
- Installers have the responsibility to make sure the speaker installations are subject to local rules, regulations, and laws.
- If any danger or defect is detected, measures should be taken immediately to correct it. In touring application, please choose the installation hardware and occasion that can sustain the weight of the equipment.
- Please do not try to hang speakers over the design standard.
- When connecting the cables of the products, please use cable tie to fix the cables, to avoid actors, workers, and audience falling on the wire or brackets and affecting the speaker system.
- Please do not place the speakers near equipment sensitive to magnet fields, such as CRT displayer, TV or data saving materials.
- Please do not place the power cable near heating source. Do not over bend or damage the power cables. Do not place heavy things on it. Please do not place the cables that may be pressed or cause stumbling.
- Only the specified rated voltage should be used for this product. Please refer to the back panel of the product for the specified voltage.
- Only the supplied power cable or plug should be used. (If you need to use the product in a place different from the purchase place, please consult your local Audiocenter distributor.)
- Please check the power cable or plug regularly.
- Please make sure to connect to proper power socket with protection grounding connection.
- Wrong grounding may cause short circuits.
- The product inside does not include any component that can be repaired by users. In case of abnormal operation, please stop using immediately, and contact qualified Audiocenter maintenance worker to repair.
- Please do not use the product in the rain, or near water, or in humid environment, to avoid liquid spilling to any opening.

- When any of the following situations occurs, please cut the power immediately, and pull out the power plug from the socket, and ask qualified Audiocenter maintenance worker to repair.
  - -Wear or damage of the power cable or plug.
  - -Abnormal smell or smoking
  - -Some substance falls into the product
  - -Sound stops suddenly when using the product.
- If the product falls or damages, please turn off the power switch immediately. Pull out the power plug from the socket, and ask qualified Audiocenter maintenance worker to repair.
- When pulling out the power plug from the power socket or the product, please make sure to grab the plug instead of the power cable. Pulling the power cable directly may cause damage.
- If the product is not used for long time, or there is thunder storm, please pull out the plug from the socket.
- Please do not place the product in any uneven position. Otherwise, it may cause falling off suddenly.
- If the product is not fixed safely, please do not place it in a position that may cause easy falling.
- Please do not block the air hole. The product has air hole at the back to avoid internal temperature too high. Bad ventilation may cause damage to the product or even fire.
- Please do not hang or install any other component to the handle of the speaker. It may cause damage or injure.
- Please do not press the back panel of the product to the wall. Otherwise the plug may touch the wall and separate from the cable, and cause short circuits, malfunction, or even fire.
- Before connecting the product to other equipment, please turn off the power switch of all equipment. Before turning on or off the power switch of all equipment, please turn down the volume to the minimum.
- Please do not use the product in a very high or uncomfortable volume. Otherwise, it may cause permanent damage to your ear.
- In case of sound distortion, please do not use the product. To Continue using the product in such status may cause fire.
- Using mobile phones near the speaker may cause noise. In case of noise, please use the mobile phone far from the speaker.
- If you need service, please contact Audiocenter service center, agent, or distributor in your area.

⚠ **In order to avoid to cause you or others body injury and loss on equipment or property, please make sure to follow above basic items.**

Package accessories:

- Power cable
- User's manual
- Quality certificate

Please check above items carefully. If any questions, please advise Audiocenter representative, dealers, distributors, or contact by email box: support@ac-pro.net.

Optional accessories:

- Flight case
- Cover bag
- Stand

◆ Technical Features

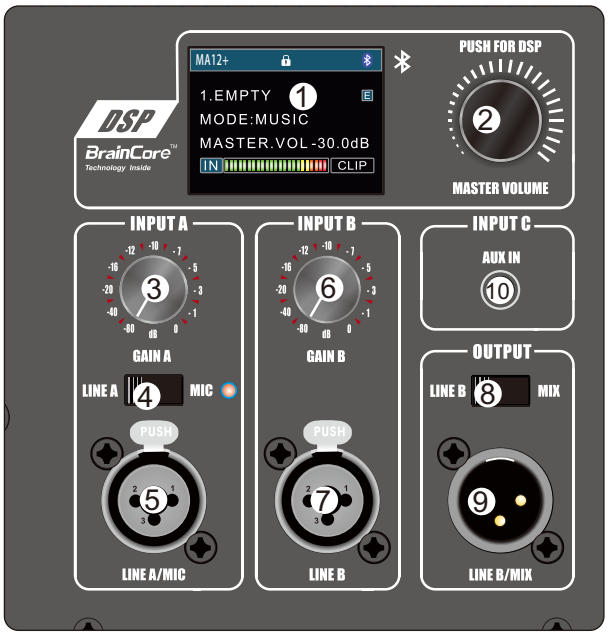
MA12+

MA15+

- **Features:**

1. Innovative BrainCore™ technology to improve the audio performance of the system.
2. Plug-and-play, user-friendly controls
3. By rotating the encoder on the back panel, users can easily access the DSP settings interface on the display screen to adjust various audio parameters.
4. MA+ adopts customized Class D amplifier together with switch mode power supply technology, which ensures the high efficiency of the system, exquisite and compact outlook and advanced cooling.
5. Advanced Cooling System: Moulded large heatsink improves cooling,resulting in higher reliability.
6.Big horn: The big horn delivers clear and perfect stereo sound with high fidelity.
7.Built-in wireless Bluetooth enables easy connection of various Bluetooth devices for audio output. Supports Bluetooth connection with TWS (True Wireless Stereo) functionality,allowing users to achieve stereo wireless pairing. Users can enjoy the wonderful sound whenever and wherever possible. The transfer is stable and reliable.
8.Portable Design: Easy to carry and transport.
9.Durable and reliable: one-piece molding with a new type of polypropylene composite material, strong and wear-resistant.
10.Elegant physical design: The cabinet is shaped with a charming curvature, elegant and stylish.

◆ Back panel control and function



❶ 2-inch HD TFT Display

The speaker is equipped with a 240 (H) x 320 (V) pixel TFT display, providing clear image display. Users can set the front signal LED to turn on or off via the display screen interface.

❷ PUSH FOR DSP/MASTER VOLUME

The DSP control knob and button switch, when the knob is pressed, allows access to the DSP settings interface. The master volume knob, by rotating the knob, can increase or decrease the system gain, with a total volume range from -60dB (mute) to +10dB, in increments of 1dB, with a default setting of 0dB.

❸ GAIN A (GAIN) Gain control knob

Use the GAIN A knob to control the gain of the input signal on MIC/LINEA(LINEIN).This control can adjust the sensitivity to control the amount of signal sent to the power amplifier and then to the speakers.

❹ LINE/MIC switch

According to the level of the input signal set the LINE/MIC switch to LINE or MIC. For low-level signals such as microphones set the switch to the MIC position. For high-level signals such as electro-acoustic and audio devices set the switch to the LINE position.

❺ INPUTS socket (MIC/LINE A)

Balanced XLR and Phone multi-purpose input socket

❻ GAIN B (GAIN) Gain control knob

Use the GAIN B knob to control the gain of the input signal on LINE B . This control can adjust the sensitivity to control the amount of semaphore sent to the power amplifier and then to the speaker subassembly.

❼ INPUTS socket(LINE B)

Balanced XLR and Phone multi-purpose input socket

❽ OUTPUTS LINE B /MIX switch

Set the LINE/MIX switch to LINE B or MIX according to application requirements.

❾ OUTPUTS LINE B /MIX socket

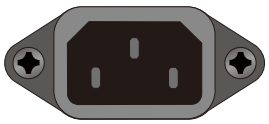
Balanced XLR output jack. Balanced output of the mixed audio signal (can mix all the signals directly input into one whole). Or balanced output of the LINE B signal.

⑩ INPUT Jack (AUX)
3.5mm input socket.

⑪ POWER switch
Turn the power on or off, pull the switch up to position(1) to turn on the power, and pull the switch down to the position (0)to turn off the power.

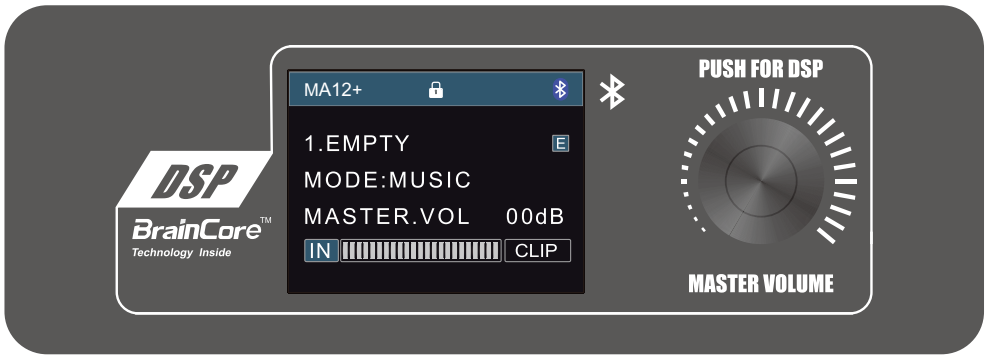
POWER

⑫ AC INPUT slot
Connect the cable to the slot.Connect the power wire to the device first and then connect the cable to the AC slot.

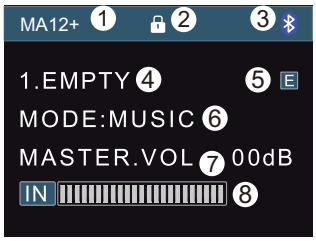

AC INPUT

NOTE: The MA+ series employs a universal power supply, capable of operating the system with input AC power voltages ranging from 100-240V~ 50-60Hz. Use only the power cable that is correct for your location

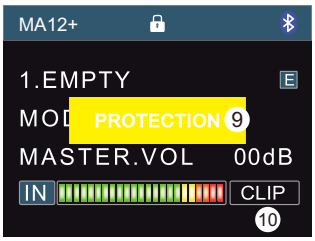
◆ Display function introduction



Display status



Normal display status

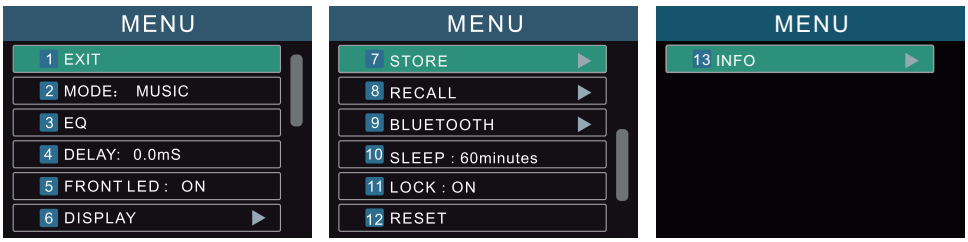


Protect display status

1.Current model
2.Screen self-lock logo
3.Bluetooth switch display logo
4.User-defined mode
5.User-defined mode storage prompt, display "E" indicates that the current mode is not stored.
6.Currently used mode
7.Total volume mark
8.Signal monitoring bar. When there is signal input, a green progress bar is displayed.
9.Protection prompt
10.Distortion prompt identification

Display operation

Short press MASTER VOLUME to enter the DSP menu bar interface, and by rotating the MASTER VOLUME knob, users can easily access the DSP setting interface.



1.EXIT

Select EXIT to return to the home screen.

2.MODE

The speaker has 4 different styles of modes for different users, which can be called up by the MASTER VOLUME knob.

MUSIC: Default mode, based on FLAT mode, adjusts the equalization parameters, improves the low-frequency response, inputs the music signal, and improves the dynamics of the music. Using this mode can bring users a high-quality experience.

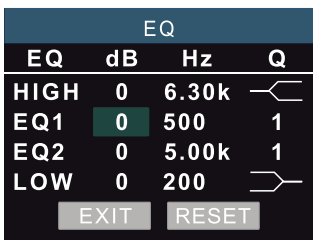
FLAT: The speaker frequency response is a steady-state response, which is a special linear response. Its high and low frequencies are balanced with each other. Users can simply and effectively adjust the speaker response (using a parametric equalizer or any external DSP) to meet the needs of some special applications, such as defective architectural space acoustics, peculiar sound sources (unique sounds/equipment or special effects) and personal tastes of sound.

SPEECH: Based on the FLAT mode, it highlights a range of human voice frequencies, with a low-frequency drop before 200Hz and a gain increase in the human voice frequency range, which is used to improve the clarity of the human voice. Applications include corporate events, exhibitions and public speeches.

W/SUB: This is a preset mode for speakers with subwoofer systems. Through the combination of full-range speakers and subwoofer systems, the overall dynamic range can be improved, the low-frequency response can be extended, and the sense of space can be improved. It is recommended to use it with AUDIOCENTER subwoofers.

3.EQ

EQ	dB	Hz	Q
HIGH(High shelf)	0(-10 to +10dB)	6.30k (fixed value)	N/A(non-adjustable)
EQ1(PEQ)	0(-10 to +10dB)	500 adjustable	1.0 (0.5-5 adjustable)
EQ2(PEQ)	0(-10 to +10dB)	5.00k adjustable	1.0 (0.5-5 adjustable)
LOW (Low shelf)	0(-10 to +10dB)	200 (fixed value)	N/A(non-adjustable)



RESET: reset the EQ parameter to the default value.

EXIT:Return to the upper-level menu.

4.DELAY

Adjust speaker delay, default is 0.0mS. Adjustable from 0 to 20mS.

5.FRONT LED Front indicator switch Settings.

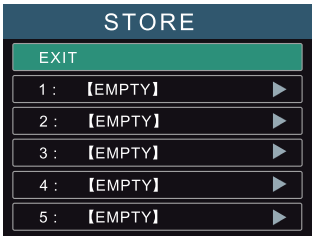
The default is OFF. Front light can be adjusted to OFF (off) /ON (on, bright blue)

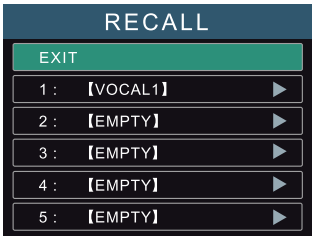
6.DISPLAY

Display screen off setting. When the screen needs to be off in a special place, select "ON" and the display will automatically enter the screen off state (turn black) after 15 minutes of no operation. In the screen off state, press the MASTER VOLUME knob to restore the brightness of the display.

7.STORE

User-defined mode storage provides 5 user-defined mode storages. When users adjust EQ, delay, and other settings, they can rename the currently modified settings to save them. Custom naming supports 15-digit letters and numbers. At the same time, through this window, you can also delete the custom mode and restore it to the default value.





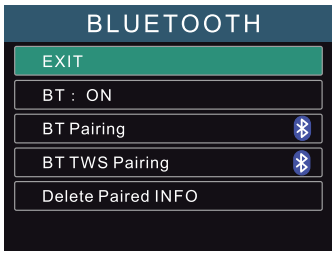
8.RECALL

User-defined mode call and read. After saving the custom mode, the user can quickly call it through the "RECALL" window.

9.BLUETOOTH

The speaker has Bluetooth connection and playback function, equipped with Bluetooth 5.0 chip, providing a more stable and efficient wireless audio transmission experience, and the transmission is stable and reliable.

Bluetooth needs to be manually turned on through the BLUETOOTH interface. BT:ON (Bluetooth on); BT:OFF (Bluetooth off, default value) When Bluetooth is turned on, the Bluetooth LOGO appears on the right side of BT Pairing, and the flashing LOGO indicates that it has entered the pairing state. You need to bring a Bluetooth terminal (such as a mobile phone, computer, iPad, etc.) to pair. After the pairing is successful, the Bluetooth LOGO stops flashing. The paired device will automatically connect successfully when Bluetooth is turned on.



BT TWS Pairing: The speaker has Bluetooth pairing function and provides Bluetooth stereo playback function. When pairing is required, you need to operate the BT TWS Pairing pairing function of the two speakers. Rotate the cursor to BT TWS Pairing, and short press to turn on the pairing function. The Bluetooth LOGO will appear on the right. When the two speakers are paired successfully, the Bluetooth LOGO will stop flashing.

Delete Paired INFO: Short press to clear all device pairing information.

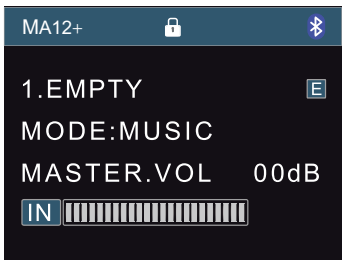
10.SLEEP

The speaker has a sleep mode function, which can save energy.

There are two options: SLEEP: OFF (will not enter sleep mode, default value); SLEEP: 60 minutes (after 60 minutes of no signal input, it will automatically enter sleep mode. In this state, the speaker is completely silent). When there is a signal input, it will automatically wake up, and the wake-up time is 2-3S.

11.LOCK

Screen lock function to prevent misoperation. LOCK: OFF (unlocked, default value) LOCK: ON (the display screen will automatically enter the lock screen state if there is no operation for 2 minutes, and the "lock" logo will appear in the middle of the main interface). To exit the lock screen state, press and hold MASTER VOLUME for 2S to exit.



12.RESET

Restore factory settings function, "YES" resets all display debugging parameters and preset files to default values (restore factory settings), user-defined mode (STORE) will not be cleared, STORE and other parameters need to be manually cleared individually, and need to be manually deleted in the RECALL interface.

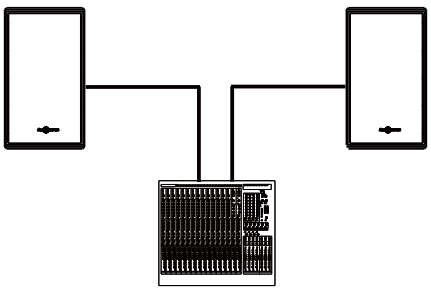
13. INFO

Device firmware version information.

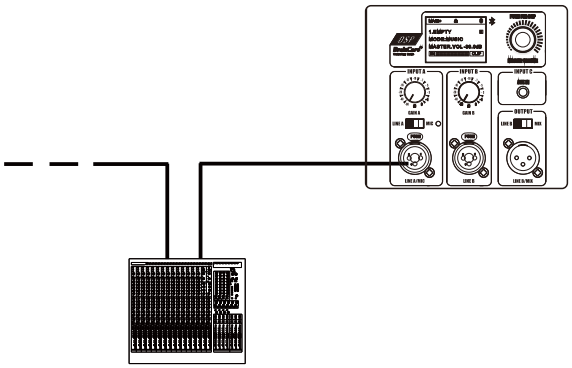
◆ Product Application Sample of MA+ series

1.Basic system application

Below is the basic system application with 2pcs of MA+ series full range speakers. This system is ideal for small size touring performances, restaurants and rehearsals etc..



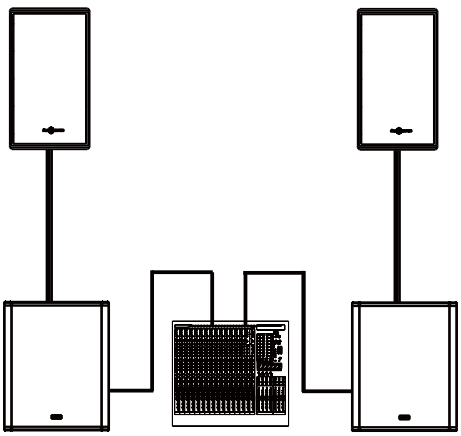
1-1



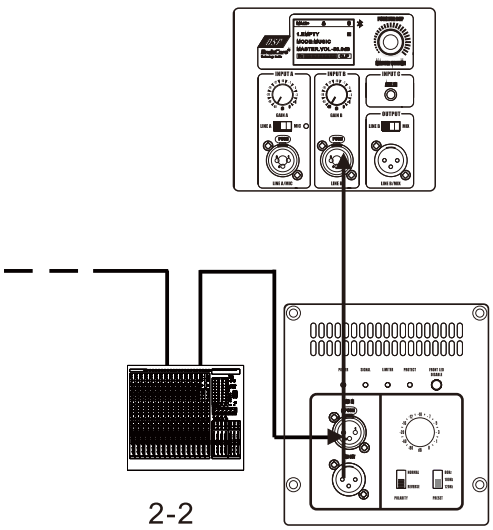
1-2

2.Basic system with subwoofer:

Below is the basic system with 2pcs of MA+ series full range speakers and 2pcs of subwoofers with coupling bars. This system is ideal for small size touring performances, churches and small stadiums, etc..



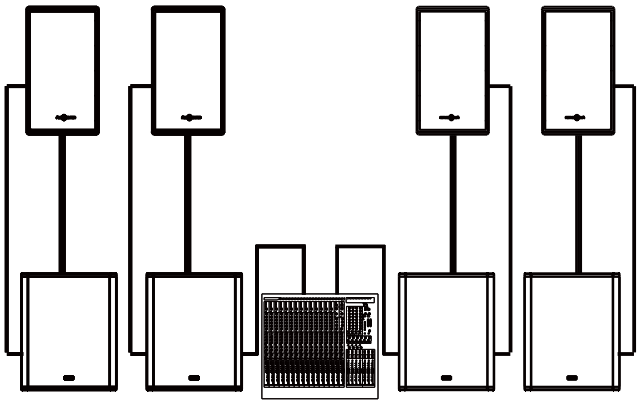
2-1



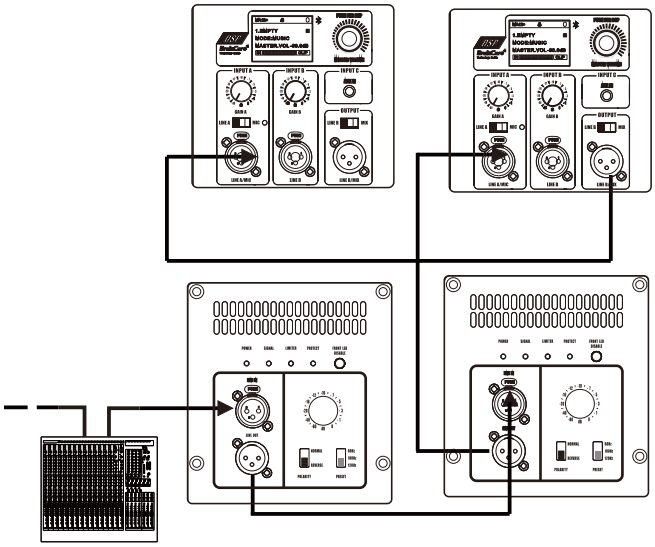
2-2

3. System for medium scale application:

Below is the system for medium scale application with 4pcs of MA+ series full range speakers and 4pcs of subwoofers. This system is ideal for medium size touring performances, churches, etc..



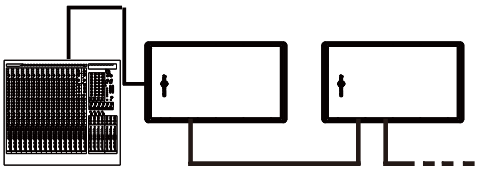
3-1



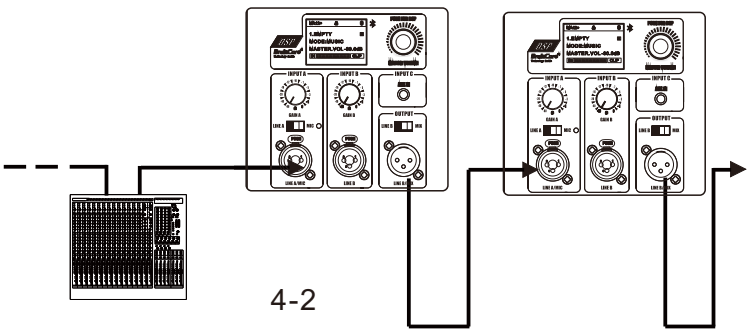
3-2

4. Monitor System :

The following introduces the use of MA+ speakers for stage monitoring.



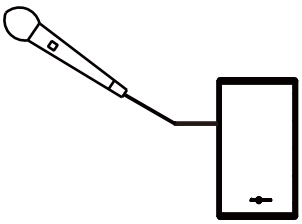
4-1



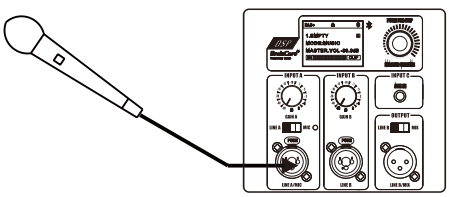
4-2

5. System with Microphone :

Below is the application of MA+ Series speakers with one microphone. In this situation, please recall the“SPEECH”preset,and set the switch at “MIC” position. This system is ideal for seminar, product launch, etc..

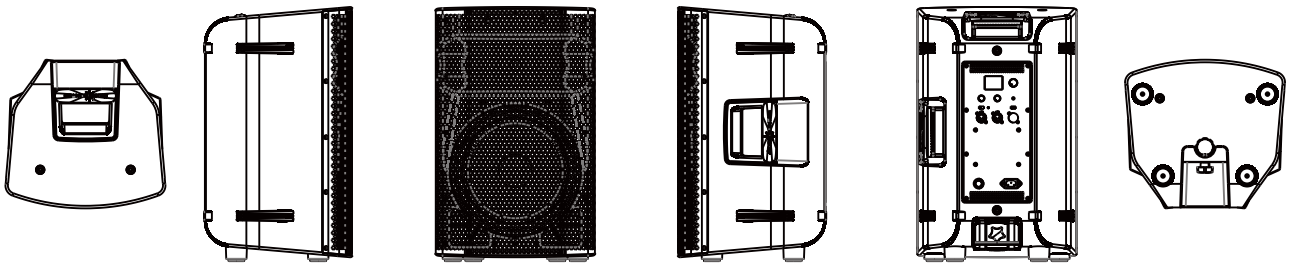


5-1

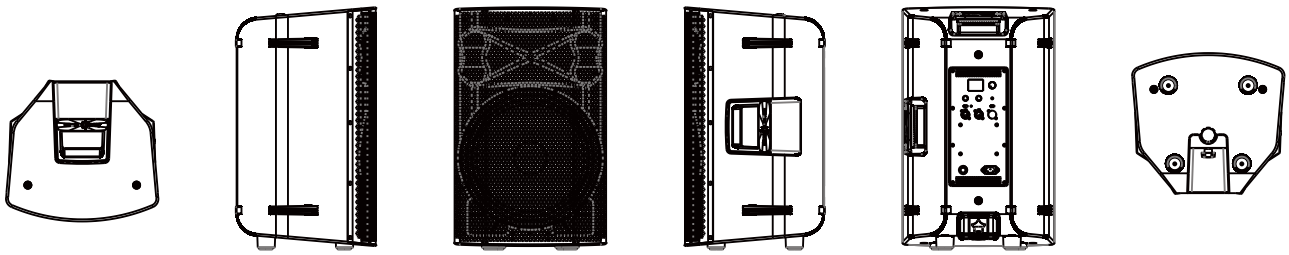


5-2

◆ Dimension

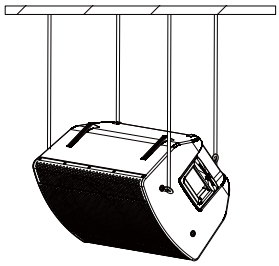


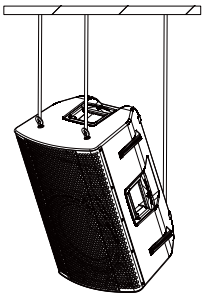
MA12+(WxHxD):381x582x343mm

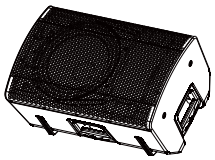


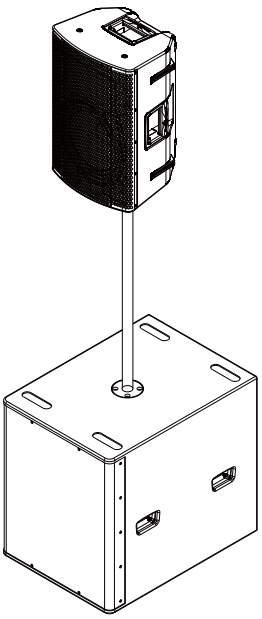
MA15+(WxHxD):432x661x387mm

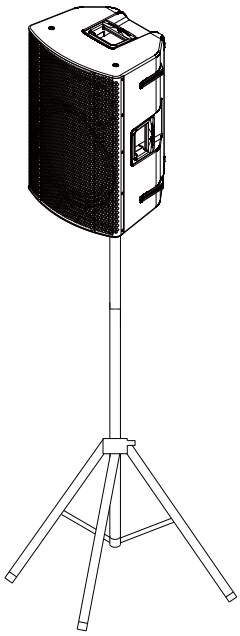
◆ Installation guidance











◆ MA+ series specification

SPECIFICATIONS		MA15+	MA12+
Frequency Response(-10dB)		45Hz-20kHz	50Hz-20kHz
Directivity -6dB(H°×V°)		90° × 60°	
Maximum Calculated SPL/1M	**Continuous**	128dB	125dB
	Program	131dB	128dB
	Peak	134dB	131dB
Drivers	**HF**	Customized driver,1.75” voice coil,1.0” exit	
	LF	Customized 15” driver, 3.0” voice coil	Customized 12” driver, 2.5” voice coil

DSP	
Processor	48kHz signal sampling frequency
Presets	MUSIC, FLAT, SPEECH, W/SUB

AMPLIFIER		
Amplifier	Class D	
Power(RMS standards)	800W	
Peak Power	1600W	
Frequency Response (1W 8Ω 2ch)	20Hz-20kHz(±0.5dB)	
Intermodulation Distortion (20Hz-20kHz, half power)	<0.05%	
Total Harmonic Distortion (20Hz-20kHz, Rated power 8Ω)	<0.05%	
Cooling	Cooling with fans ,air convection	
Protection	DC protection,Short circuit protection,Overheat protection，Output overload protection，Soft startup protection，Overvoltage protection，Undervoltage protection	
Signal Input Connector	Female XLR(Mono jack 6.35), 3.5mm Jack Input, Wireless bluetooth	
Signal Output Connector	Male XLR mixed output or balanced output	
Power Input	IEC power connector	
Working Voltage	100-240V~ (±10%,50/60Hz)	
Power consumption (1/8 output power)	64W	55W

CABINET		
Cabinet	New polypropylene composite material	
Cabinet Color	Black is the default color	
Grille	Iron mesh	
Handles	1 side,1 top	
Monitor Angle	Symmetrical 45° monitor angle	
Hanging Hardwares	M8 screw	
Pole Mount	Base hole Φ35mm	
Speaker Dimension (W×H×D)	432×661×387mm	381×582×343mm
Carton Dimensions (W×H×D)	476×743×445mm	426×665×401mm
Net Weight	19.0kg	16.0kg
Shipping Weight	23.0kg	19.0kg

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◆ Trouble Shooting

Symptom	Possible reasons	Solution
The screen is not lighting up	Cable not connected correctly	Make sure the power cord is properly connected, or it may be in auto-sleep mode.
No sound	Cable not connected correctly. all gain. Or too sm	Connect with input socket correctly. Adjust speaker output gain input bigger.
Feedback in the sound	Microphone is toward to speaker Sound is too high. Wrong preset used.	Keep speakers out of the microphone response area. Lower the output gain.
Sound Discrepancy from different speakers .	Different gain for different speakers Different presets for different speakers Subwoofers are out phase	Put the same gain for different speakers. Use the same presets for different speakers. Make the subs in phase
Sound distortion	Input volume is too big Output volume is too big	Reduce the input volume of the equipments Reduce the output gain of the speakers, make the Limiter LED light a bit If the sound still distorted while the volume is set to minimum, make the MIC/LINE switch to be LINE.
Microphone volume is too small	MIC/LINE switch is set at LINE	Set the MIC/LINE at MIC
Not enough SPL while full range speakers used together with subs	Subs might be out of phase	Adjust the phase of subs
The light signal is on, there is a signal output, but the speaker does not sound	Maybe the volume knob is set to the minimum,Closing the volume	Slightly increase the volume knob

★ **Please consult distributor if there are still problems**

AUDIOCENTER

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