



Dynamic Audio Solutions

BrainCoreTM

Technology Inside

User's Manual

GT ACTIVE SERIES

Active DSP-controlled Loudspeaker



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◆ Product Introduction

Thank you for purchasing GT Active series full range active speaker system from Audiocenter. They have integrated technologies of switch mode power supply, big power digital amplifier and DSP control as well as speakers made of new materials. It is the result of years of R&D effort. We hope that you can use with pleasure just as how we designed it. Please finish reading the manual before usage, to make sure the best performance of GT Active.

Please keep the manual for future reference.

◆ Safety precautions

When you set up, install and use the GT Active, 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 equipments.
- 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 equipments.
- 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 equipments 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 equipments. Before turning on or off the power switch of all equipments, 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.

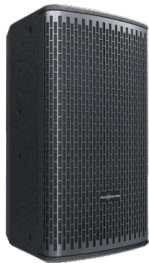
Package accessories:

- 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:

- U horizontal bracket
- Joint bracket
- Flightcase
- Cover bag
- Stand
- Coupling bar

◆ Technical Features

GT508A



GT510A



GT512A



GT515A

● Features:

1. Integrated with massive big power, switch mode power supply technology and DSP control technology.
2. With built-in DSP control technology, all functions like EQ adjustment, phase correction, delay, limiter, etc, can be realized easily.
3. High efficiency Class D amplifier technology, light weight and more compact.
4. With 3 presets of GT Active Series, users can recall different presets for different applications to get the right sound performance.
5. Powerful protection function with built-in DSP processing circuit that can give strong limiter protection to the HF and LF separately.
6. Advanced AD/DA converter. 48 KHz signal sampling frequency and 24-bit precision device to ensure the clear and clean sound.

◆ Presets for GT Active series

There are three presets in GT Active series full range speakers for users to recall for usage in different applications.

1st Preset-MAIN

2nd Preset-SPEECH(Only for GT508A/510A)&LF BOOST(Only for GT512A/515A)

3rd Preset-W/SUB

Presets for GT Active series are set up by factory before shipment. Users can only recall the presets for usage in different applications, but can't change or delete the presets.

● 1st Preset-MAIN

For live performance and use as monitor in stage.

● 2nd Preset

Base on MAIN preset, the frequency range of human voice is highlighted. Below 200Hz, the LF is reduced, and gain of human voice frequency range is increased, which is to enhance the clarity of human sound. Speech preset is used for company activities, presentations and public speech etc.

Speech preset (only available for GT508A and GT510A)

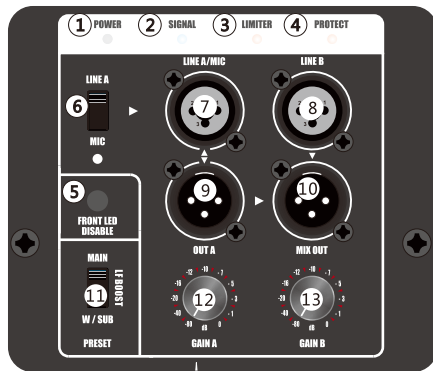
LF BOOST Preset (only available for GT512A and GT515A)

Ideal for DJ's and Club application, giving an extra boost on Low frequency.

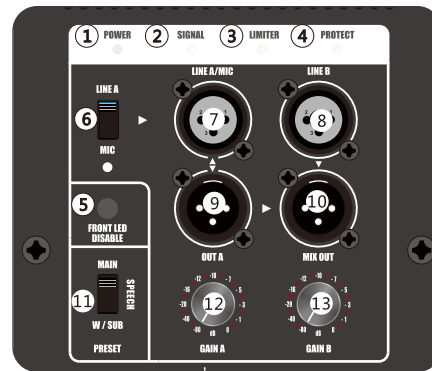
● 3rd Preset-W/SUB

The perfect match to use together with Audiocenter Sub, getting a proper phase alignment.

◆ Back panel control and function



GT512A/GT515A



GT508A/GT510A

- 1 **POWER Indicator:**
When speaker connected to power, the LED is on.
- 2 **SIGNAL Indicator:**
When detecting channel has input signal, the LED is on.
- 3 **LIMITER Indicator**
The LED turns on when output limiter is activated. If the output voltage of the amplifier exceeds the maximum value, output limiter will be activated damping the output signal of the amplifier.
- 4 **PROTECT Indicator**
The light turns on if the amplifier is detected to be overheated. And the amplifier enters into the protection status.
- 5 **FRONT LED button switch(LINE B)**
The front panel LED indicator light won't illuminate when the switch is pressed down (this setting is recommended when the front panel LED indicator light is too blinding). Upspring the button, the front panel LED indicator light on .
- 6 **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
- 7 **INPUTS socket (MIC/LINE A)**
Balanced XLR and Phone multi-purpose input socket
- 8 **INPUTS socket(LINE B)**
Balanced XLR and Phone multi-purpose input socket
- 9 **OUTPUTS socket(LINE OUT)**
Balanced XLR output socket, parallel to the INPUT socket(LINE IN)the signal in LINE OUT is equivalent with the signal in LINE IN. And the input signal can be bypassed without influence.

10 OUTPUTS socket(MIX OUT)

Balanced XLR outputs socket Balanced output mix signal(which can mix direct input signal of the three channels into a whole)

11 PRESET choosing button

For GT Active series there are 3 presets available for the users choosing according to different sound performance needed in different applications. Users can choose the optimal sound performance via buttons.

12 GAIN A (GAIN) Gain control knob

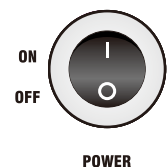
Use the GAIN A knob to control the gain of the input signal on MIC/LINEA(LINEIN). This control can adjust the sensitivity to control the amount of semaphore sent to the power amplifier and then to the speaker subassembly.

13 GAIN B (GAIN) Gain control knob

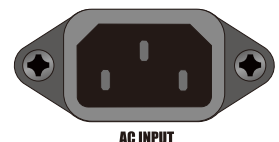
Use the GAIN B knob to control the gain of the input signal on LINE B and AUX. This control can adjust the sensitivity to control the amount of semaphore sent to the power amplifier and then to the speaker subassembly.

14 POWER switch

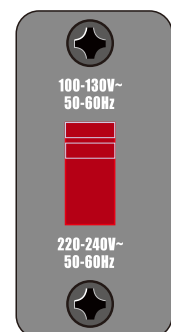
Turn the power on or off, pull the switch up to position(1) to turn on the power, and pull the switch down to the position (0)to turn off the power.

**15 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.

**16 Voltage selector**

Sets the operating voltage for compatibility with the voltage supply in the country of use.

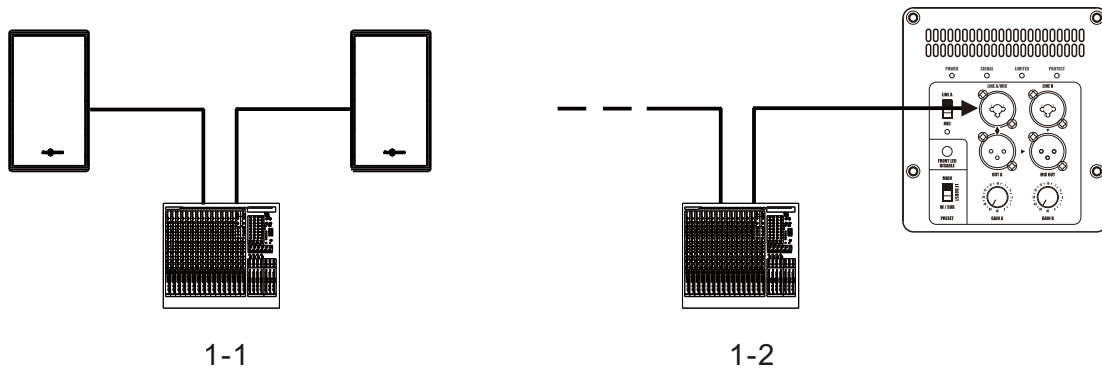


NOTE: The GT Active employs a universal power supply, capable of operating the system with input AC power voltages ranging from 100-130V~ 50-60Hz and 220-240V~50-60Hz. Use only the power cable that is correct for your location.

◆ Product Application Sample of GT Active series

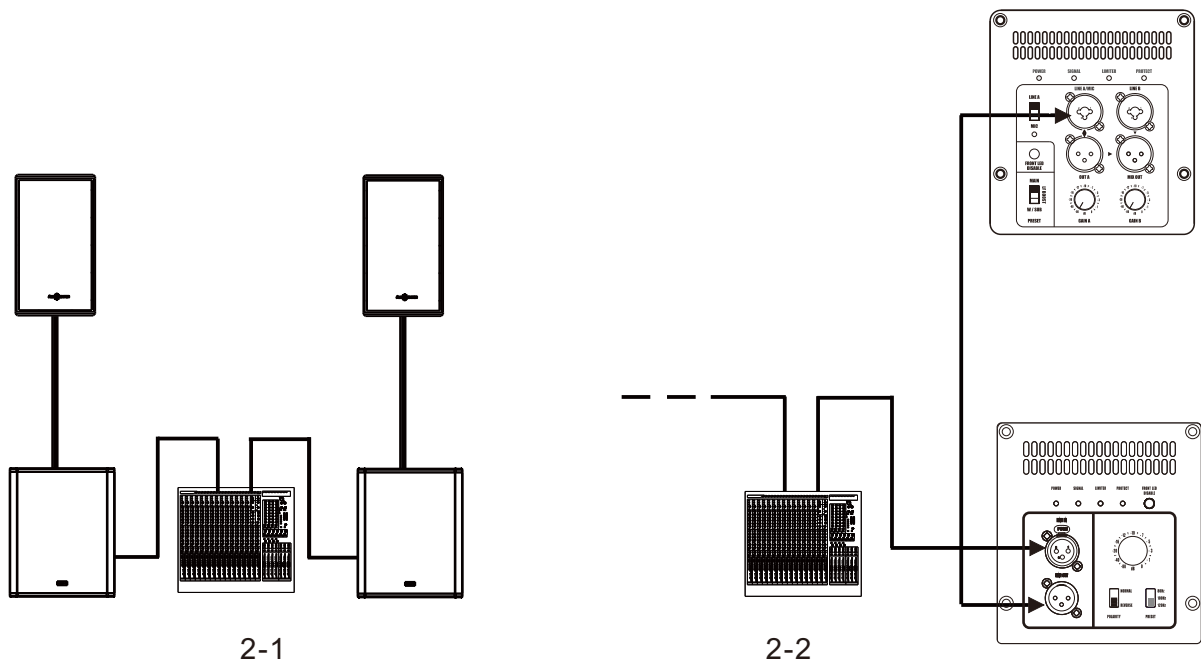
1. Basic system application

Below is the basic system application with 2pcs of GT Active series full range speakers. This system is ideal for small size touring performance restaurant and rehearsal etc....



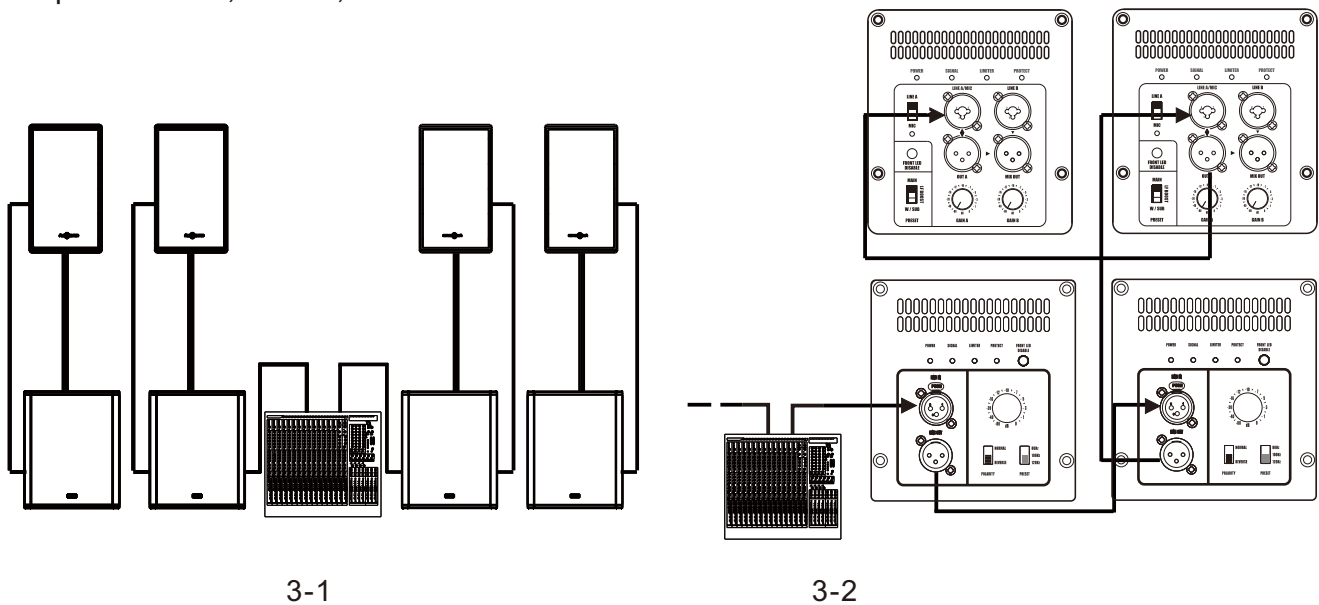
2. Basic system with subwoofer:

Below is the basic system with 2pcs of GT Active series full range speakers and 2pcs of subwoofers with coupling bars. This system is ideal for small size touring performance, church and small stadium, etc..



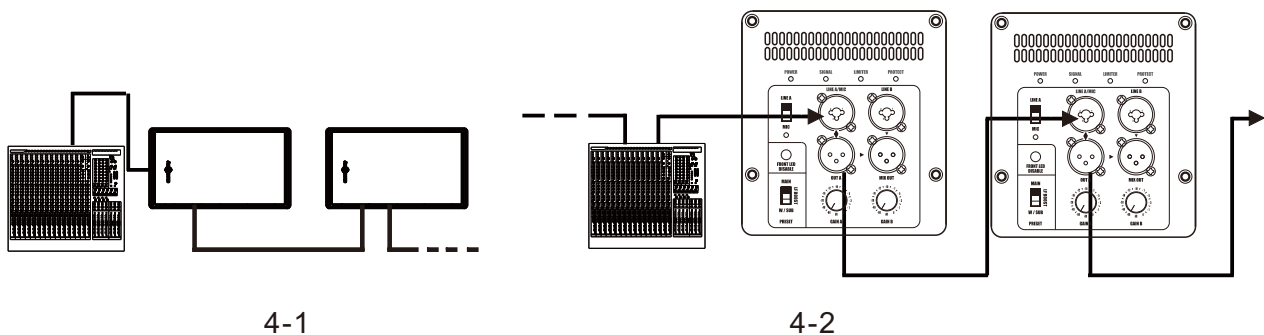
3. System for medium scale application:

Below is the system for medium scale application with pcs of GT Active series full range speakers and pcs of subwoofers. This system is ideal for medium size touring performance, church, etc..



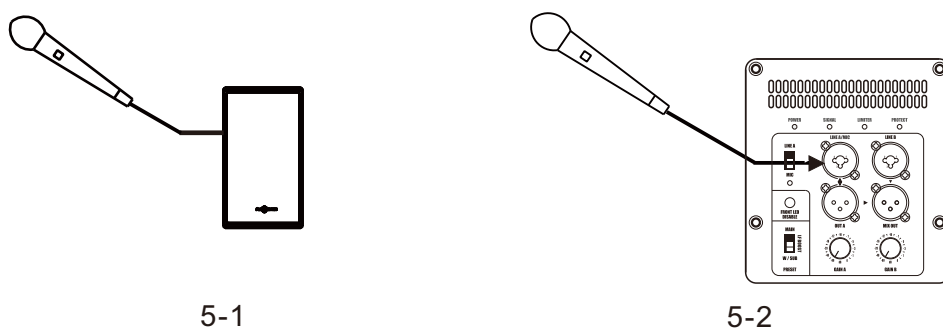
4. Monitor System :

The following introduces the use of GT512A or GT515A speakers for stage monitoring

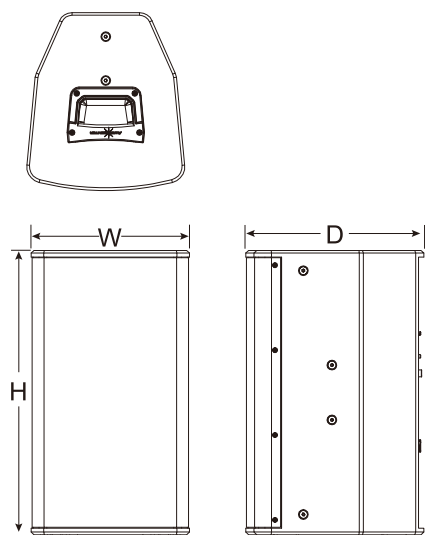


5. System with Microphone :

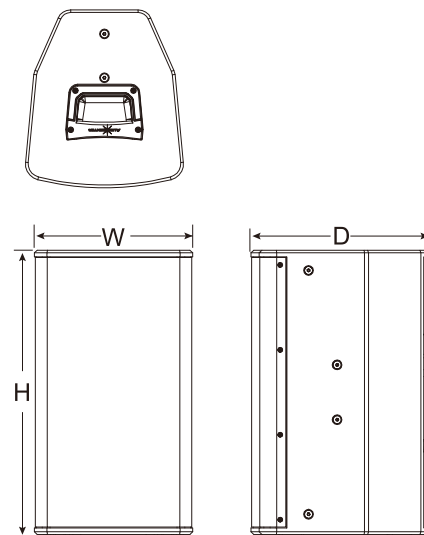
Below is the application of GT Active Series speakers with one microphone. In this situation, please recall the "MAIN/SPEECH" preset, and set the switch at "MIC" position. This system is ideal for seminar, product launch, etc.



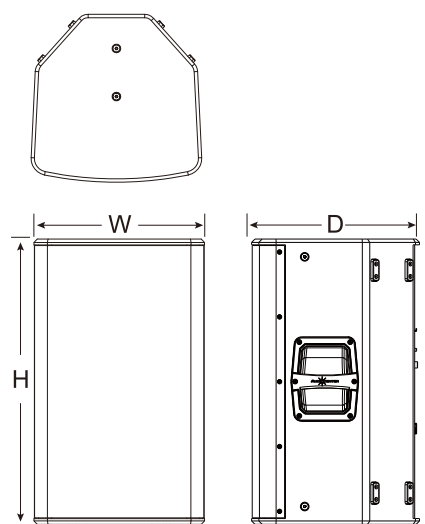
◆ Dimension of GT Active series



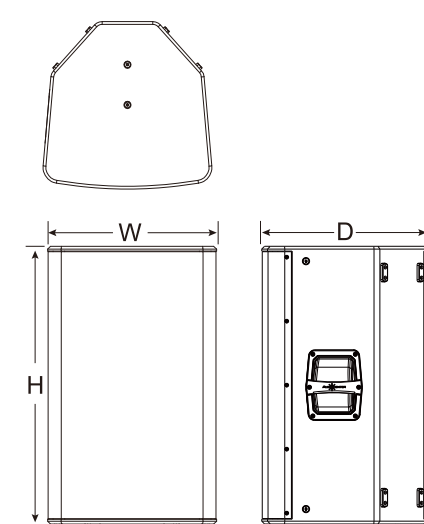
GT508A 245×447×320mm (W×H×D)



GT510A 288×526×325mm (W×H×D)

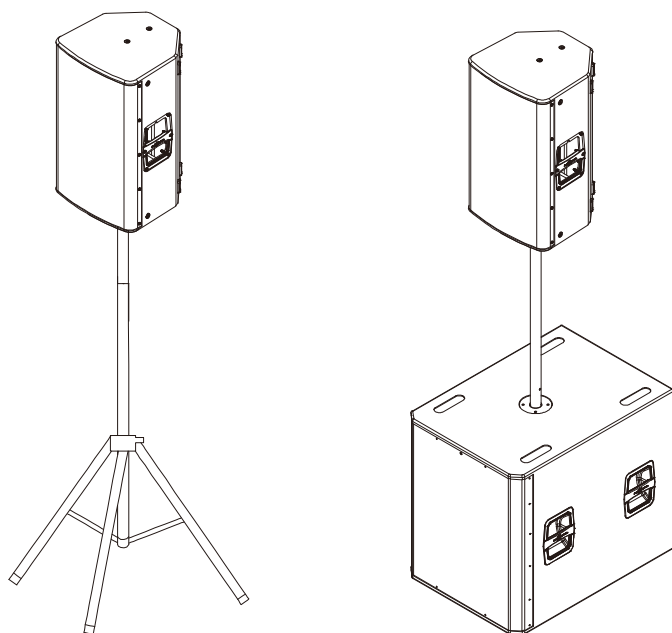
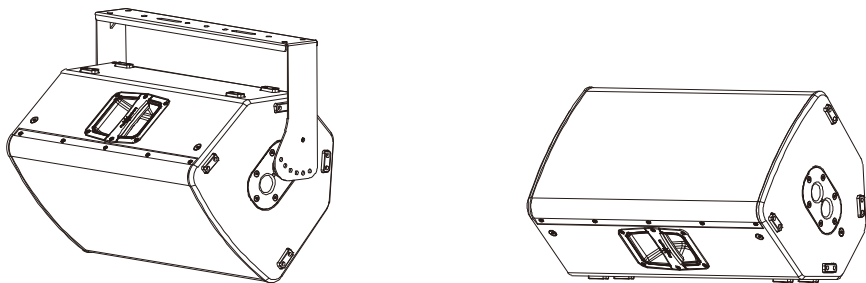
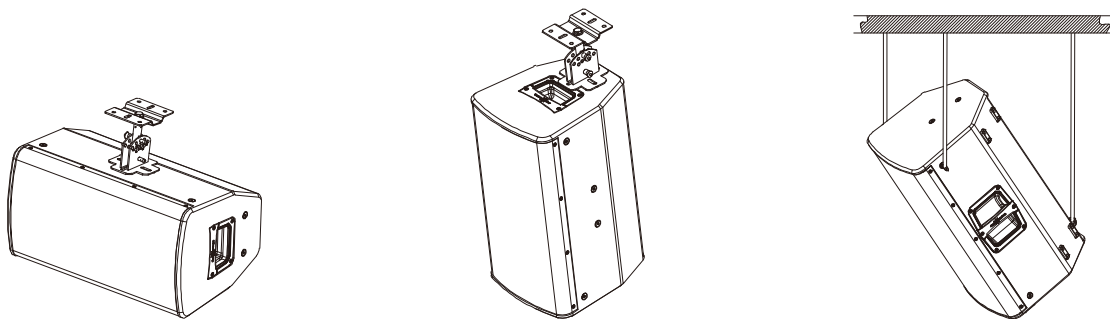


GT512A 355×599×349mm (W×H×D)



GT515A 421×696×416mm (W×H×D)

◆ Installation guidance



◆ GT Active series specification

SPECIFICATIONS		GT515A	GT512A	GT510A	GT508A
Frequency Response(-10dB)		40Hz-20kHz	42Hz-20kHz	55Hz-20kHz	65Hz-20kHz
Directivity -6dB(H°×V°)		90°× 60°/60° × 90°			
Maximum Calculated SPL/1M	Continuous	130dB	128dB	124dB	119dB
	Program	133dB	131dB	127dB	122dB
	Peak	136dB	134dB	130dB	125dB
Drivers	HF	Customized driver, 1.75" voice coil, 1.0" exit			
	LF	Customized 15" driver, 3.0" voice coil	Customized 12" driver, 3.0" voice coil	Customized 10" driver, 2.5" voice coil	Customized 8" driver, 2.0" voice coil

DSP

Processor	48kHz signal sampling frequency, FIR filtering			
Presets	MAIN, LF BOOST, W/SUB		MAIN, SPEECH, W/SUB	

AMPLIFIER

Amplifier	Class D			
Power(RMS standards)	1100W			
Peak Power	2200W			
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/Output Connector	Female XLR (Mono jack 6.35) for input, Male XLR for output			
Power Input Connector	IEC power connector			
Working Voltage	100V-130V~ or 220V-240V~(±10%, 50/60Hz)			
Power consumption (1/8 output power)	95W	95W	69W	50W

CABINET

Cabinet Material	CNC machined plywood			
Coating	Durable Polyurea Coating			
Cabinet Color	Black is the default color. Contact Audiocenter for customization			
Grille	Iron mesh			
Handles	2 side		1 top	
Monitor Angle	Symmetrical 45° monitoring Angle		/	
Hanging Hardwares	M8 screw			
Pole Mount	1 base hole Φ35mm on the bottom, 0° or 10° options			
Optional Accessories	Horizontal U bracket / Cover / Pole bar /Flightcase			
Speaker Dimension(W×H×D)	421×696×416mm	355×599×349mm	288×526×325mm	245×447×320mm
Carton Dimensions(W×H×D)	516×785×516mm	446×688×446mm	383×610×415mm	336×531×410mm
Net Weight	24.0 kg	21.0 kg	15.0 kg	13.0 kg
Shipping Weight	28.0 kg	24.0 kg	18.0 kg	15.0 kg
Technical Support and After-sales Service	Global application support team			

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◆ Trouble Shooting

Symptom	Possible reasons	Solution
Power LED not light	Cable not connected correctly	Connect the cable correctly
No sound	Cable not connected correctly. Or too small gain.	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



Dynamic Audio Solutions