

# StuDiomaster

**CORE series - mobile line array sound system**



**USER  
GUIDE**

**GD202109132**

**070404266**

## IMPORTANT SAFETY SYMBOLS



The symbol is used to indicate that some hazardous live terminals are involved within this apparatus, even under the normal operating conditions, which may be sufficient to constitute the risk of electric shock or death.



The symbol is used in the service documentation to indicate that specific component shall be replaced only by the component specified in that documentation for safety reasons.



Protective grounding terminal



Alternating current/voltage



Hazardous live terminal

**ON:** Denotes the apparatus is turned on

**OFF:** Denotes the apparatus is turned off.

**WARNING:** Describes precautions that should be observed to prevent the danger of injury or death to the operator.

**CAUTION:** Describes precautions that should be observed to prevent danger of the apparatus.

### • Ventilation

Do not block ventilation opening, failure to do so could result in fire. Please install according to the manufacturer's instructions.

### • Object and Liquid Entry

Objects do not fall into and liquids are not spilled into the inside of the apparatus for safety.

### • Power Cord and Plug

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, refer to electrician for replacement.

### • Power Supply

The apparatus should be connected to the power supply only of the type as marked on the apparatus or described in the manual. Failure to do could result in damage to the product and possibly the user. Unplug this apparatus during lightning storms or when unused for long periods of time.



Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

## IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.

- Keep these instructions.

- Heed all warning.

- Follow all instructions.

- Water & Moisture

The apparatus should be protected from moisture and rain, can not used near water, for example: near bathtub, kitchen sink or a swimming pool, etc.

- Heat

The apparatus should be located away from heat sources such as radiators, stoves or other appliances that

- Fuse

To prevent the risk of fire and damaging the unit, please use only of the recommended fuse type as described in the manual. Before replacing the fuse, make sure the unit turned off and disconnected from the AC outlet.

- Electrical Connection

Improper electrical wiring may invalidate the product warranty.

- Cleaning

Clean only with a dry cloth. Do not use any solvents such as benzol or alcohol.

- Servicing

Do not implement any servicing other than those means described in the manual.  
Refer all servicing to qualified service personnel only.

- When this product is powered on and in working state, do not connect or disconnect power supply, speaker or height adjustment column, otherwise it can cause the device to burn out.

## I. Product description:

CORE series mobile line array sound system includes two sound systems: CORE 121 and CORE 151. The CORE 121 consists of a 3.5-inch neodymium magnetic passive full-range speaker, a 12-inch active subwoofer with a dual-channel power amplifier embedded in a 4-channel mixer, and a height-adjustable retractable speaker bracket; CORE 151 consists of a 3.8-inch neodymium magnetic passive full-range speaker, a 15-inch active subwoofer with a dual-channel power amplifier embedded in a 4-channel mixer, and a height-adjustable speaker bracket.

CORE 121 mobile line array sound system, including a 3.5-inch full-range speaker and nine 1-inch dome speakers, and a 12-inch active subwoofer. It delivers exceptionally clear and natural sound, and a tight and deep feature. Very light weight and easy to carry.

CORE 151 mobile line array sound system, including a 3.8-inch full-range speaker and twelve 1-inch dome speakers, and a 15-inch active subwoofer. It delivers exceptionally clear and natural sound, and a tight and deep feature. Very light weight and easy to carry.

Both the 12-inch and 15-inch sub speakers use the ported design, 2 channels of 700W+400W dual-channel built-in amplifier, 4 channels of input mixer, which including 2 channels of mic/line input, 1 channel of RCA stereo input, 1 channel HI-Z line input, 2 channel XLR line input, and 1 channel mixed line input. Sub volume could be controlled independently.

This series is perfectly tailored to the exacting demands of salons, bars, small and medium-sized concert sounds, conferences, lectures, etc.

## 2. Product Features:

- \*Built-in powerful 24bit DSP, with functions such as gain, crossover, EQ, delay, limiter and program memory, etc. You can choose the default program or customize it yourself.
- \*High-efficiency 2-channel 700W+400W Class D amplifier has the characteristics of high power, low distortion and clear sound timbre.
- \*220V-240V voltage design, light weight and stable performance.
- \*Support TWS Bluetooth, and user can connect two CORE systems to configure a stereo setup.
- \*The adjustment range of the delay time is 0-100m, in steps of 0.25m.
- \*The ultra-wide radiation angle of 100°x45° covers more listener areas.
- \*The height of the equipped bracket can be freely adjusted.
- \*Cables are not required to connect a CORE system.

### 3. Parameters:

CORE 121 full frequency range speaker

MF: three 5 inch neodymium magnetic full frequency speakers

HF: nine 1 inch dome tweeters

Directivity(H\*V): 100°x45° (-10dB)

Power-handling, nominal: 300W RMS

Rated impedance: 6 $\Omega$

Dimensions (W x H x D): 188 x 517 x 243 mm

Weight: 8kg

CORE 121 sub speaker

Speaker: 12 inch

Power-handling, nominal: 700W RMS

Rated impedance: 4 $\Omega$

Dimensions (W x H x D): 408 x 600 x 475 mm

Weight: 27kg

CORE 151 full frequency range speaker

MF: three 8 inch neodymium magnetic full frequency speakers

HF: twelve 1 inch dome tweeters

Directivity(H\*V): 100°x45° (-10dB)

Power-handling, nominal: 400W RMS

Rated impedance: 4 $\Omega$

Dimensions (W x H x D): 255 x 695 x 316 mm

Weight: 11.5kg

CORE 151 sub speaker

Speaker: 15 inch

Power-handling, nominal: 700W RMS

Rated impedance: 4 $\Omega$

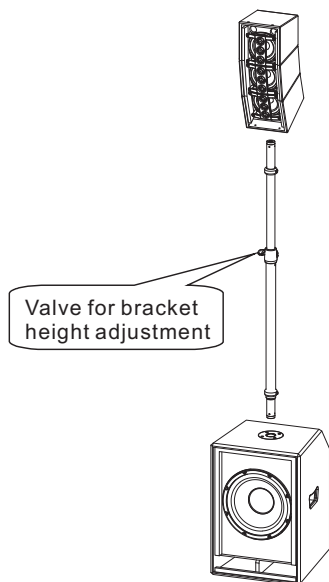
Dimensions (W x H x D): 483 x 725 x 585 mm

Weight: 36.5kg

#### CORE 121/151 analog mixer

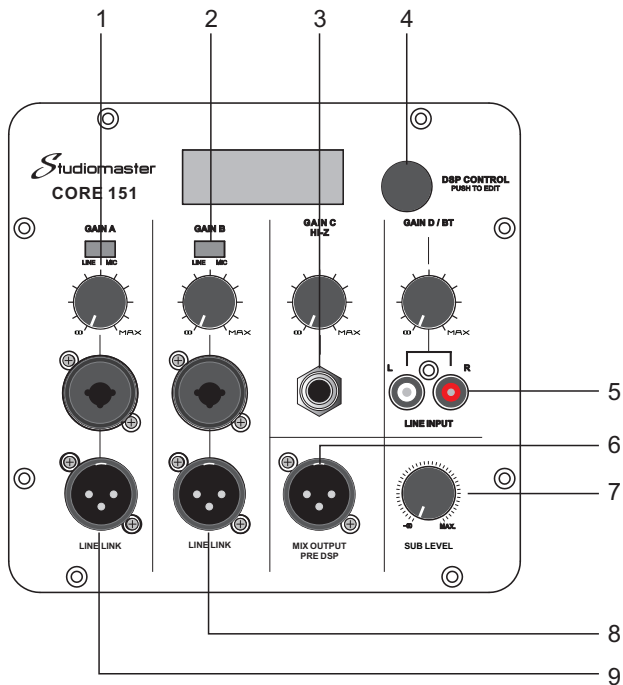
Input	4 channel (2x Mic/Line, 1xRCA , 1xHi-Z )
Input connector	1-2#: XLR / 6.3mm jack combo 3# 6.3mm jack balanced TRS 4#: 2 x RCA
Input impedance	1-2# MIC: 40 k Ohms balanced 1-2# LINE: 10 k Ohms balanced 3#: 20 k Ohms balanced 4#: 5 k Ohms unbalanced
Output connector	1-2#: Line Link: XLR3#: Mix out: XLR

#### 4. Installation diagram



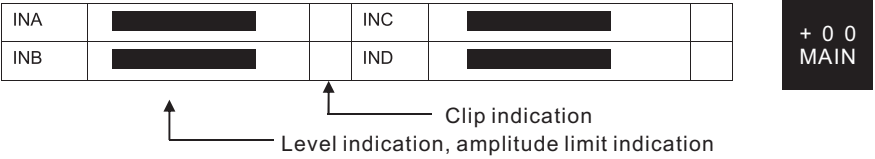
As shown in the figure, please adjust through the adjustment valve; please adjust under the shutdown state to avoid damage to the equipment.

## 5. Functions and control system



- 1, Gain: Control the signal of 1-4 channels;
- 2, LINE/MIC: select the signal source
- 3, 6.35mm Jack: can connect high impedance audio source
- 4, DSP CONTROL: Can be set by pressing or rotating
- 5, LINE INPUT: RCA line input
- 6, MIX OUTPUT: Master output
- 7, SUB LEVEL: Sub volume control
- 8, LINE LINK: Link 1 and 2 channels signal
- 9, INPUT COMBO: compatible with XLR and 6.35mm Jack plugs.

6.DSP detailed menu:



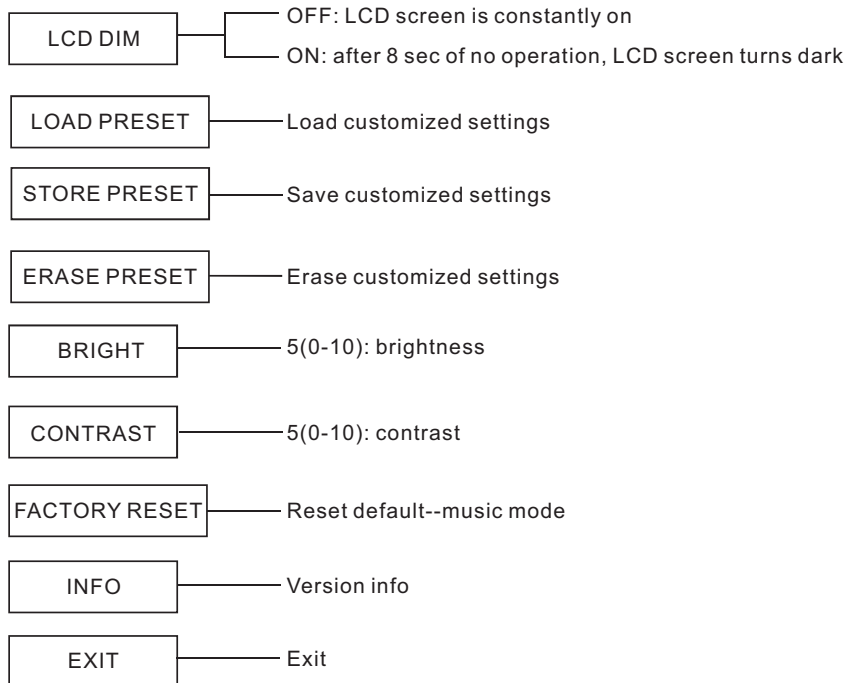
- Steps:1. total adjustable volume range -60 dB--10dB. (refer to the above picture) , when signal is reaching the limit+00 will display LIMIT.
- 2.When there is signal going into IN1 or IN2 channel, LCD screen will display level status; (refer to the above picture)
- 3.When Bluetooth is activated, IND shows blue icon. When Bluetooth is not connected, Bluetooth icon flashes rapidly; When Bluetooth is connected, Bluetooth icon flashes slowly. When Bluetooth and TWS are connected, Bluetooth icon doesn't flash.
- 4.Press menu knob to go to the submenu. Turn the knob can choose different functions, press menu knob to confirm.

Detailed operation is as follows:

HI EQ	12kHz -12dB---0dB---12dB; According to actual needs, increase/attenuate high-frequency correspondingly.
MID EQ	-12dB---0dB---12dB; According to actual needs, increase/attenuate mid-frequency correspondingly.
MID FREQ	70Hz--12KHz
LOW EQ	70Hz -12dB---0dB---12dB; According to actual needs, increase/attenuate low-frequency correspondingly.

Note: when the device is working at full power, a large increase in EQ is very dangerous and can cause the device to burn out.

PRESETS	MUSIC music mode VOICE speech mode DJ DJ mode
LOW CUT	OFF: turn off low-cut function 80Hz、100Hz、120Hz、150Hz; choose different low-cut frequency division point;
DELAY	OFF: turn off delay function 0--100 meters: choose delay distance
BT ON/OFF	OFF: turn off Bluetooth ON: turn on Bluetooth TWS: turn on Bluetooth stereo



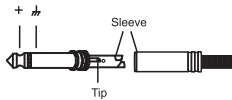
Note :1. At secondary interface, if there is no operation for 8 sec, it will automatically go back to main interface.

2.Memory function: when system is turned on, it will load the previous settings.

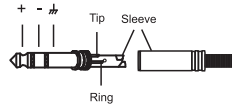


# 7. WIRING

. For 1/4" phone jack

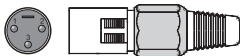


1/4" TS jack  
Unbalanced input/output



1/4" TRS jack  
Balanced input/output

. For XLR

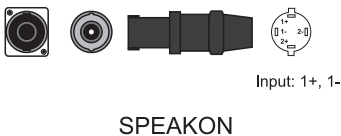


XLR(male)  
pin2=Hot, pin3=Cold, pin1=Ground

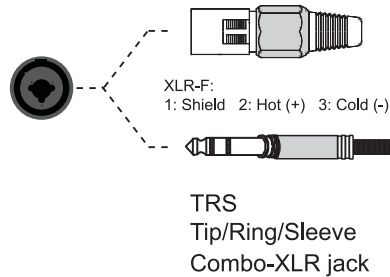


XLR(male)  
pin2=Hot, pin3=Cold, pin1=Ground

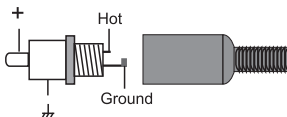
. For SPEAKON



. For COMBO



. For RCA



## 8. Combined system diagram:

### CORE 121 Mobile line array sound system

CORE 121 system with analog mixer		CORE 121 Twin system with analog mixer	
System configuration	Number	System configuration	Number
CORE 121 SUB	1	CORE 121 SUB	2
CORE 121 full frequency range speaker	1	CORE 121 full frequency range speaker	2
CORE 121 telescopic stand	1	CORE 121 telescopic stand	2



CORE 121

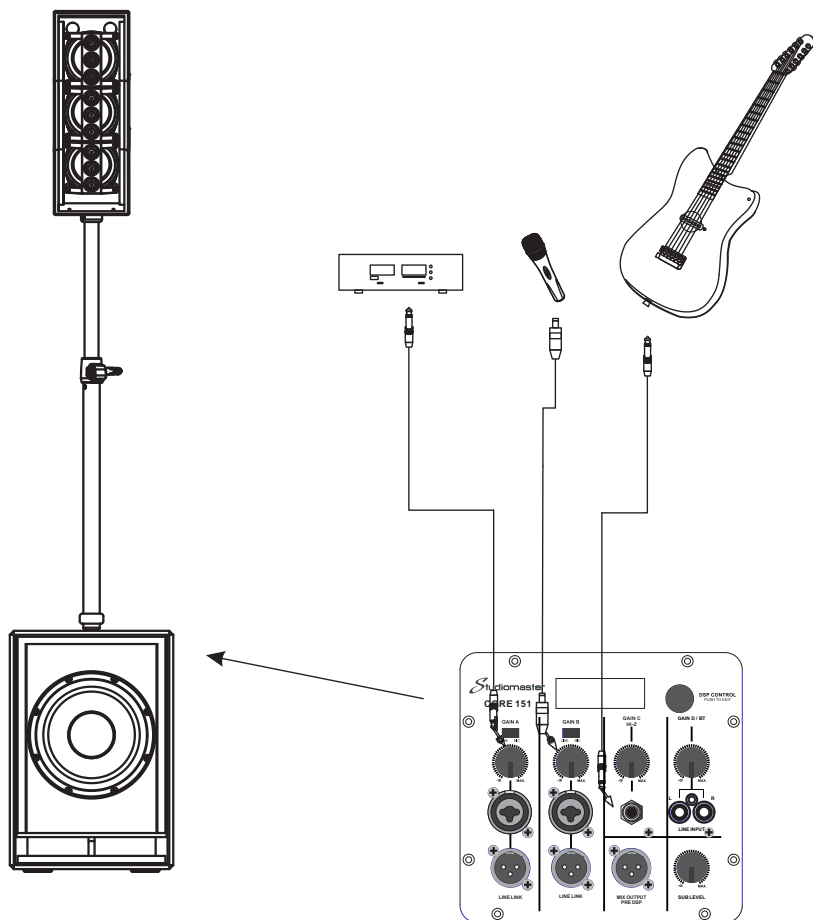


CORE 151

### CORE 151 Mobile line array sound system

CORE 151 system with analog mixer		CORE 151 Twin system with analog mixer	
System configuration	Number	System configuration	Number
CORE 151 SUB	1	CORE 151 SUB	2
CORE 151 full frequency range speaker	1	CORE 151 full frequency range speaker	2
CORE 151 telescopic stand	1	CORE 151 telescopic stand	2

## 9. System connection



**10. Packing list**

CORE 121(151)line array full frequency range speaker	1PCS
CORE 121(151)SUB	1PCS
CORE Telescopic bracket	1PCS
Power cable	1PCS
Certificate of conformity	1PCS
Warranty Card	1PCS
User manual	1PCS

**EXPECT THE BEST**



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