

Studiomaster

Active Flow Array Sound System



**USER
GUIDE**

1.Product Introduction

The CORE 181 mobile array audio system consists of one 4*5 "neodymium magnetic passive array full frequency speaker, one 18" active ultra-low frequency speaker with embedded 4-channel input and dual channel power amplifier box type mixing console, and one 6.35 two core plug dedicated adapter bracket; The overall sound is clear and delicate, with a powerful low-frequency effect and strong penetration and impact. The sound field can cover a distance range of 25 meters for use.

Passive array full range speaker: consisting of 4*5 "mid low frequency speakers and 16* 1" ball top horn tweeters; Box array design, with greater vertical angle coverage; Horn high pitched design, with strong penetration and analytical power 18 "active ultra-low frequency speaker, inverted design, built-in 2-channel 800W+800W dual channel power amplifiers, 4-channel input box type mixing console, including 2-channel Mic/Line input, 1-channel RCA stereo hybrid line input, 1-channel H1-Z line input, 2-channel XLR line output, 1-channel hybrid line output, ultra-low frequency volume can be controlled separately. Suitable for applications such as salons, cocktail parties, performances by large and medium-sized bands, weddings, and speech amplification.

2.Product Features

- *Built in powerful 24 bit DSP speaker processing module, with functions such as gain, frequency division, equalization, delay, voltage limit, program memory, etc. You can directly select the manufacturer's default program design or optimize the settings yourself
- *Efficient 2-channel 800W+800W "CLASS-D" amplifier with high power, low distortion, excellent sound quality, and stable performance
- *Wide power supply design, lightweight and stable performance, AC100V-240V power input is convenient for use in different countries
- *Support TWS Bluetooth signal connection. When using a pair of P118 Bluetooth, the Bluetooth of both speakers can be set to TWS state to form stereo state. First, set the TWS speaker as the left channel and the other speaker as the right channel
- *Ultra long delay time DSP setting, adjustable range 0-100 meters, 0.25 meter step, very good in practical applications
- * The array enclosure design covers the audience area at an ultra wide angle, with a horizontal
- * vertical ratio of 100°* 60°, which can effectively avoid the defect of too small a vertical coverage angle for the vertical linear sound source
- *Horn high pitched design, with a wide coverage angle and further amplification, possessing strong penetration and analytical power
- *18 "ultra-low unit design, with a powerful low-frequency effect and strong impact:
- * The ultra-low box body is designed with casters, which saves time and effort, and is more convenient and fast for mobile use;
- * The telescopic sound bracket can adjust the height of the array full frequency speakers according to usage requirements to achieve the best sound field coverage;
- * The array full frequency speakers do not require external speaker cables to connect, and the internal sockets of the speakers are already connected. The box body can be plugged in and used normally, with reliable contact and simple and easy operation.

3.Parameter

CORE 181 Array Full Frequency Audio

MF	4 * 5"magnetic mid LF speaker
HF	16* 1"dome horn HF
Volume (W * H * D):	198x736x339mm
Net weight:	12.1kg

CORE 181 Subwoofer Audio

Speaker:	18" LF speaker
Amplifier power:	2*800W(RMS)
Input sensitivity:	0dBu
Power supply:	AC100V-240V
Volume (W * H * D):	523x852x564mm
Net weight:	44.5kg

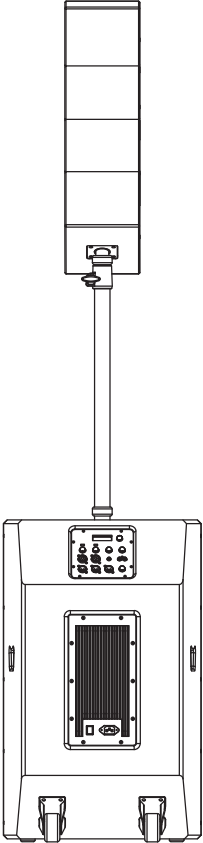
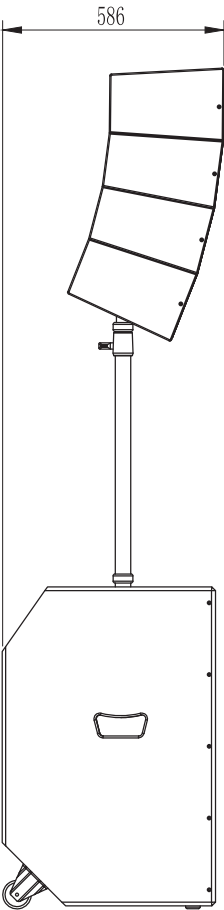
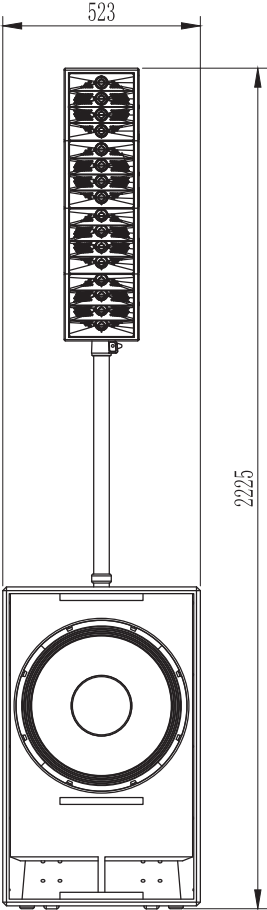
CORE 181 Mobile Array Sound System

System frequency response:	30Hz-20kHz(-10dB)
System Max SPL (peak value):	132dB
System coverage plane angle (H * V):	100°x60°
System volume (W * H * D):	523x2225x586mm

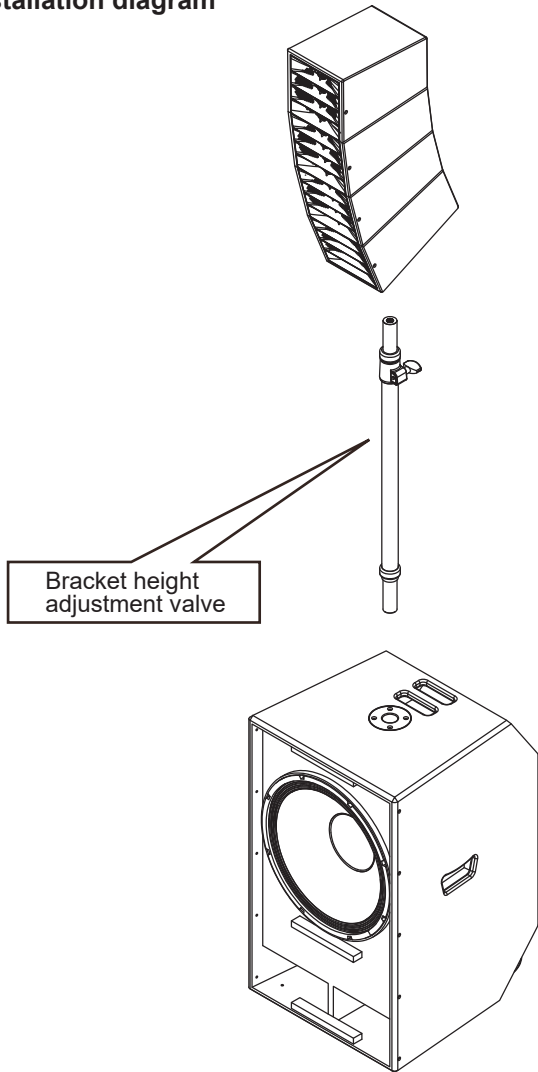
CORE 181 Analog Mixing

Console Input	4 channels (2xMic/Line, 1xRCA, 1xHi-Z)
Channel Input	1-2#:XLR/6.3mm jack combo 3# 6.3mm jack balanced TRS 4#:2 x RCA
Connector Input	1-2# MIC:40 k Ohms balanced 1-2# LINE:10 k Ohms balanced 3#:20 k Ohms balanced 4#:5 k Ohms unbalanced
Impedance	1-2#:Line Link:XLR3#:Mixout:XLR

4.System Three Views

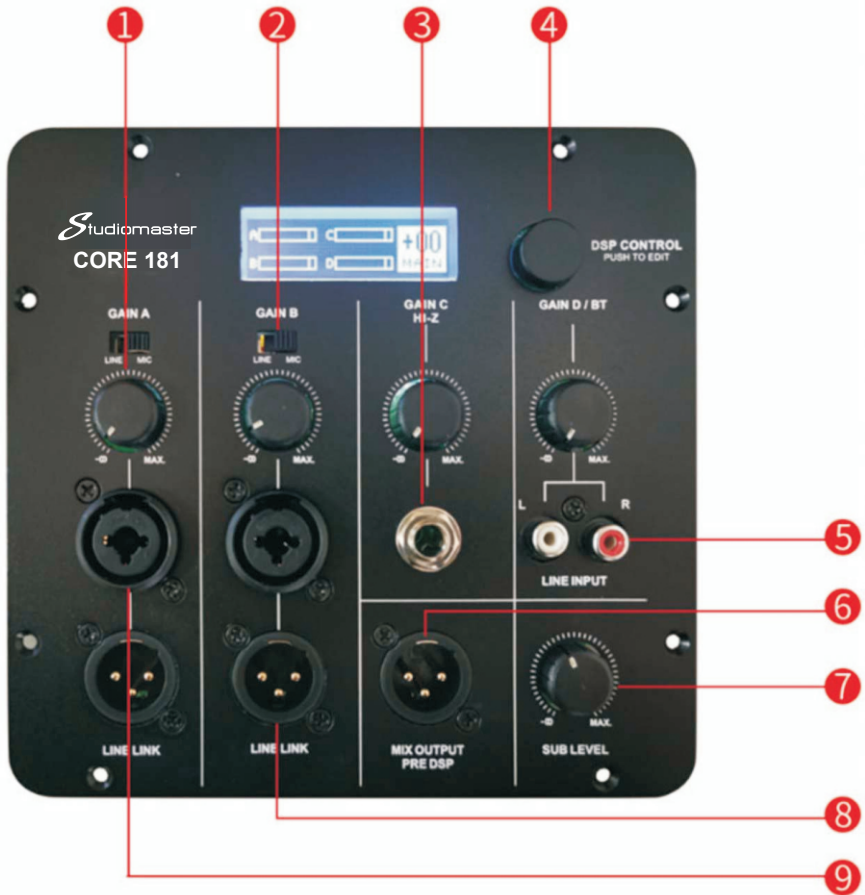


5. Installation diagram



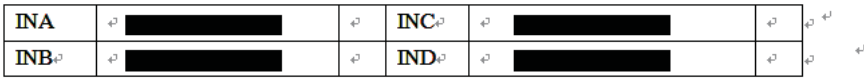
The array full-range audio can be adjusted up and down through the height regulating valve of the bracket; It is strictly prohibited to plug or unplug the power loudspeaker and bracket under the working state of the machine, which may cause damage to the machine.

6.Function and Control



1. GAIN: Gain knob, which controls the size of input signals 1 #-4 # respectively;
2. LINE/MIC selection switch: signal source selection switch, respectively for line input and microphone input state gain selection;
3. 6.35mm JACK: 3 # signal input socket, connected to high input impedance sound source devices similar to acoustic guitars;
4. DSP Control: DSP setting function knob, which can be pressed and rotated to set menus;
5. LINE INPUT: RCA line signal input socket;
6. MIX OUTPUT: signal mixing output socket;
7. SUB LEVEL: Ultra low volume knob;
8. LINE LINK: Signal link output sockets, connect 1 #-2 # signal input sockets respectively;
9. INPUT socket: signal input socket, COMBO socket, compatible with XLR and 6.35mm JACK plugs.

7.DSP menu explanation



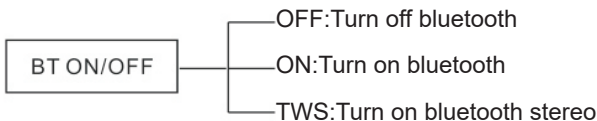
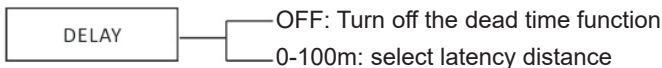
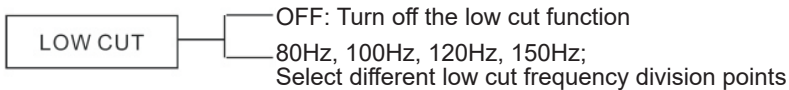
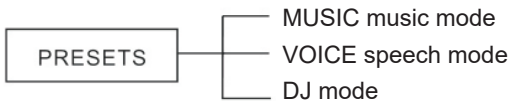
↑ Level indication, limiting indication
 ↑ Peak shaving indication

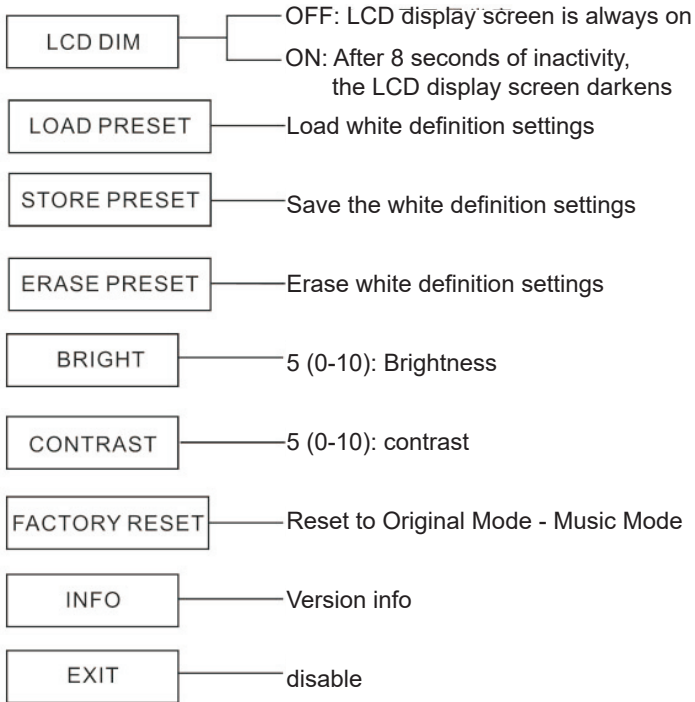
1. The adjustable range of total volume is -60dB -10dB. (Refer to the above figure), when the signal pressure limit is +00, LIMIT is displayed
2. When there is a signal input to the IN1 or IN2 channel, the LCD display screen will show the level status; (Refer to the above figure)
3. When bluetooth is turned on, IND (display screen) displays bluetooth icon. When bluetooth is not connection, the bluetooth icon flashes quickly; When bluetooth connection, bluetooth icon flashes slowly. When bluetooth connection and TWS connection, bluetooth icon does not flash.
4. Press the menu knob to enter the next level menu. Turn the knob to select the function, and press the menu knob acknowledgement.

Concrete operations are as follows:

HI EQ	12kHz -12dB---0dB---12dB; Properly amplify/attenuate HF according to actual demand
MID EQ	-12dB---0dB---12dB; Properly amplify/attenuate MF according to actual demand
MID FREQ	70Hz--12kHz
LOW EQ	70Hz -12dB---0dB---12dB; Properly amplify/attenuate any frequency according to actual demand

Attention: In the full power state, it is very dangerous to raise EQ by a large margin, which is likely to cause burning of the machine

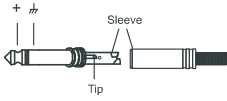




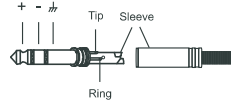
- Attention:
1. In the secondary interface, if there is no operation for 8 seconds, it will automatically return to the main interface
 2. Memory function: after the system is powered on, it will retain the last function settings.

8.Wiring

- For 1/4" phone jack



1/4" TS connector
Unbal input/output



1/4" TRS connector
bal input/output

- For XLR

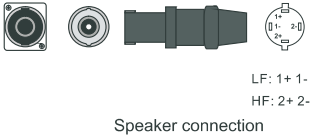


XLR (male)
Pin 2=+, Pin 3=-, Pin 1=ground

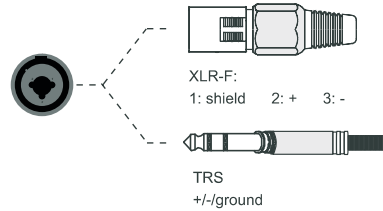


XLR (female)
Pin 2=+, Pin 3=-, Pin 1=ground

- For speaker connector

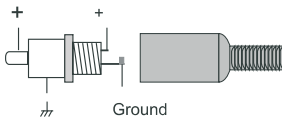


- combo

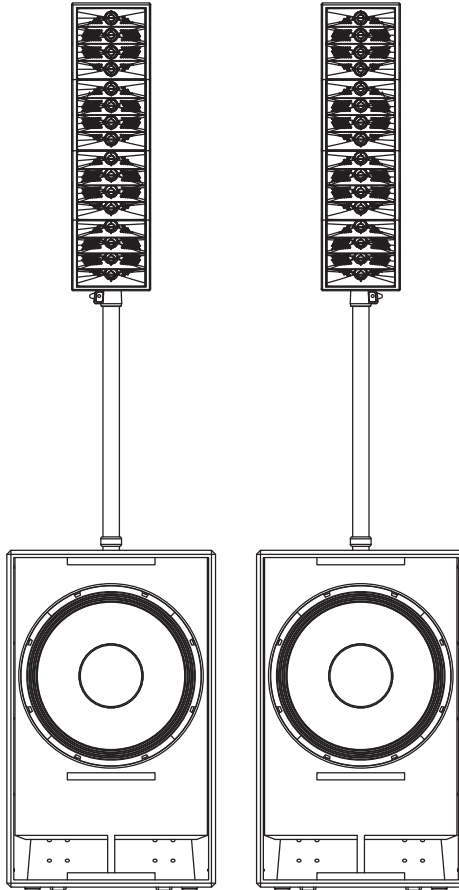


combo -XLR connector

- For RCA



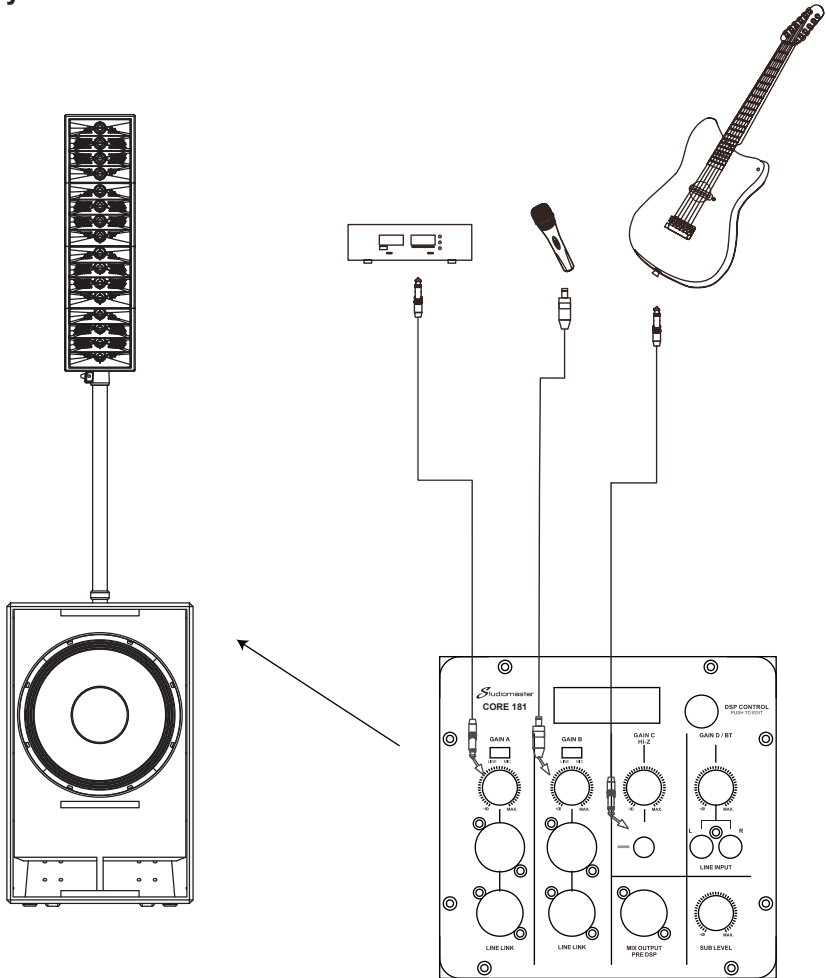
9.Group system diagram



CORE 181 Mobile Array Sound System

CORE 181 system with analog mixing console		CORE 181 Twin system band analog mixing console	
System allocation	quantity	System allocation	quantity
CORE 181 subwoofer Audio	1	CORE 181 subwoofer Audio	2
CORE 181 array full-range audio	1	CORE 181 array full-range audio	2
Telescopic speaker stand	1	Telescopic speaker stand	2

10. System connection



11. Eleven packing list:

CORE 181 array full-range loudspeaker	1PCS
CORE 181 subwoofer loudspeaker	1PCS
6.35 Two core plug dedicated adapter bracket	1PCS
Power cord	1PCS
Certificate	1PCS
Warranty computer aided researching and developing	1PCS
User 's manual	1PCS

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