

# CORE Series



The Studiomaster CORE series portable active array sound system, with its high power, long projection distance, and excellent sound quality, provides sufficient sound pressure level (SPL), good coverage, and clear sound quality for various small and medium-sized performances, music festivals, cocktail parties, and other events, satisfying the auditory experience of the live audience. Building upon the popular CORE 121 and CORE 151 series, the system has recently been enhanced with two new audio systems: CORE 122 and CORE 181. Application scenario: suitable for 1000-1500 m<sup>2</sup> free-field space.

## CORE 122

one 4x5" neodymium passive line array full-range loudspeaker  
+ one 12" active subwoofer with dual 12" active subwoofers  
+ one 6.35 dual-pin plug internal wiring adapter bracket

## CORE 181

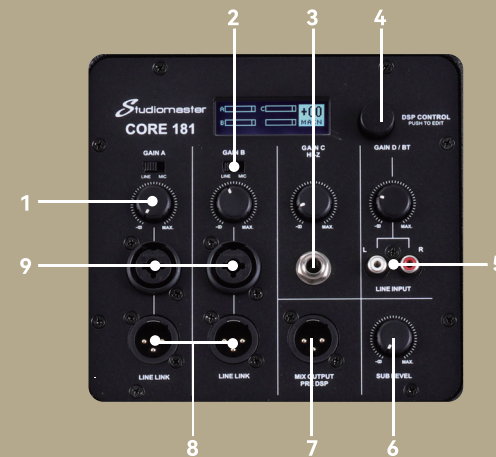
one 4x5" neodymium passive line array full-range loudspeaker  
+ one 18" active subwoofer with a mixing console featuring four inputs and a dual-channel power amplifier  
+ one 6.35 two-pin plug with an internal wiring adapter bracket

### Passive array full-range loudspeaker section

Composed of 4 5" mid-low frequency woofers + 16 1" dome tweeters; cabinet features a curved array design, providing wider vertical coverage; horn-loaded tweeter design, offering strong penetration and resolution.

### Active subwoofer section 12" & 18"

Phase-inverted cabinet design, featuring a built-in 2-channel power amplifier with 800W+800W, an embedded mixing console with 4 input channels, including 2 Mic/Line inputs, 1 RCA stereo mixed line input, 1 HI-Z line input, 2 XLR line outputs, and 1 mixed line output. The subwoofer volume can be controlled independently.



- 1 GAIN**  
respectively command the magnitude of input signals 1#-4#
- 2 LINE/MIC selection switch**  
The signal source selection switch allows for gain selection in line input and microphone input states respectively
- 3 6.35mm JACK**  
3# signal input socket, connected to a high input impedance audio source device similar to a wooden guitar
- 4 DSP CONTROL**  
DSP setting function knob, which can be used to set the menu by pressing and rotating
- 5 LINE INPUT**  
RCA line signal input socket
- 6 SUB LEVEL**  
Ultra-low volume knob
- 7 MIX OUTPUT**  
Signal link output socket
- 8 LINE LINK**  
The signal link output socket is connected to the 1#-2# signal input sockets respectively
- 9 INPUT socket**  
Signal input socket, COMBO socket, compatible with XLR and 6.35mm JACK plugs

## Feature

- **Built-in powerful 24bit DSP**  
It features functions such as gain, crossover, equalization, delay, threshold, and program memory, with parameters that can be set by the user
- **2-channel 800W+800W "CLASS-D" amplifier**
- **Wide power supply design**  
AC100V-240V power input
- **Supports a pair of CORE122/CORE181 TWS bluetooth wireless connections Establish a stereo sound state.**
- **DSP setting for ultra-long delay time**  
The adjustment range is 0-100 meters, with a step size of 0.25 meters.
- **Horn HF design, ultra-wide angle coverage**  
With a wide coverage angle of 100° horizontally and 60° vertically, the curved array design effectively avoids coverage blind spots.
- **Subwoofer cabinet with added castor design**  
Time-saving and labor-saving, it is more convenient and faster to use when portable.
- **Pneumatic lifting rod**  
The height of the array full-range loudspeaker can be adjusted according to the usage requirements. With wiring inside the tube and contacts on both ends, the array full-range loudspeaker can be plugged in and used normally, with reliable contact and simple operation.

## Specifications

	CORE 122	CORE 181
System frequency response	35Hz-20kHz(-10dB)	30Hz-20kHz(-10dB)
System Max SPL (peak)	130dB	132dB
System coverage angle (HxV)	100°x60°(-6dB)	100°x60°(-6dB)
System volume (WxHxD)	423x2200x571(mm)	523x2225x586(mm)

	Dual 12" active subwoofer	18" active subwoofer
speaker	2x12" LF woofer	18" woofer
Amplifier power	2x800W (RMS)	2x800W (RMS)
Input sensitivity	0dBu	0dBu
power supply	AC100V-240V	AC100V-240V
Dimension (WxHxD)	423x823x510mm	523x852x564mm
Net weight	42kg	44.5kg

	Passive array full-range loudspeaker
MF	4x5" nd MLF frequency woofer
HF	16x1" dome tweeter
Dimension (WxHxD)	198x736x339(mm)
Net weight	12.1kg

## Speaker stand

### SPSAP1 internal wiring pneumatic lifting support rod

Built-in telescopic gas spring (stroke: S=450mm, force: F=130N); the diameter of the connecting round hole is 35mm. The internal sound cable runs through, and the two ends of the pipe are equipped with 6.35mm contacts, which are connected to the upper and lower loudspeakers respectively, ensuring reliable contact. It is easy to operate, and the height of the line array full-range loudspeaker can be adjusted according to the usage requirements to achieve ideal sound coverage.

Product Specifications	
Height	890-1230(mm)
Load capacity	50kg
Weight	1.8kg
Material	aluminum alloy
Inner box size	110x75x920(mm)

## Optional accessories



Full-range loudspeaker protective bag      Subwoofer transport bag