

# Studiomaster

## USER'S MANUAL

DIRECT MX series Compact vertical array system



**USER  
GUIDE**

**GD202208247**

**070404457**

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## 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.

## 1. product introduction:

Dear customer, thank you and congratulations on buying Studiomaster's latest DIRECT MX series portable compact vertical array system. DIRECT MX series compact vertical array system has two members: DIRECT 101MX and DIRECT 121MX. DIRECT 101MX compact vertical array system includes one 6\*3" passive column speaker+one 10" active subwoofer with on-board mixer that has built-in 4-channel input, dual-channel power amplifier and one compact vertical array support box. DIRECT 121MX compact vertical array system includes one 6\*3" passive column+one 12" active subwoofer with on-board mixer that has built-in 4-channel input, dual-channel power amplifier and one column support box.

3-way 3-inch plastic compact vertical array system includes full-range speaker comprised of one 6\*3" full-speaker+1\*1"range compression drive speaker, and one 10"(or 12")active subwoofer. It has excellent sound quality, light weight and is easy to carry. MF horn splay design ensures, uniform sound coverage.

10"(or 12")active subwoofer, bass reflex design, built-in 2\*300W dual-channel power amplifier, 4-channel input channel mixer, including 2\*channel Mic/Line input, 1-channel RCA stereo combo line input, 1-channel HI-Z line input, 1- channel combo are line output, separate low frequency volume control. MIC input channels are with reverb function, and reverb depth can be adjusted. 去掉最后一句 "MIC...be adjusted. Suitable for salons, receptions, small band performances, conferences, speech and other applications.

In order to better understand the function of the device, please read this manual carefully before operating, and keep this manual for future reference.

### 10" subwoofer system



DIRECT 101MX system

With analog mixer

| System configuration                | Quantity |
|-------------------------------------|----------|
| DIRECT MX full range column speaker | 1        |
| DIRECT 10MX                         | 1        |
| Height adjustment column            | 1        |



DIRECT 101MX Twin system

With analog mixer

| System configuration                | Quantity |
|-------------------------------------|----------|
| DIRECT MX full range column speaker | 2        |
| DIRECT 10MX                         | 2        |
| Height adjustment column            | 2        |

### 12" subwoofer system



DIRECT 121MX system

With analog mixer

| System configuration                | Quantity |
|-------------------------------------|----------|
| DIRECT MX full range column speaker | 1        |
| DIRECT 12MX                         | 1        |
| Height adjustment column            | 1        |



DIRECT 121MX Twin system

With analog mixer

| System configuration                | Quantity |
|-------------------------------------|----------|
| DIRECT MX full range column speaker | 2        |
| DIRECT 12MX                         | 2        |
| Height adjustment column            | 2        |

### 3.Product features

- \* Built-in powerful 24bit DSP speaker processing module, has gain, crossover, balance, delay, compression, limit, program memory and other functions, you can choose the default settings, or you can do your own.
- \* Efficient 2\*channel 300W“CLASS-D” amplifier, high power, small distortion, excellent sound quality.
- \* Switch power supply, light weight, stable performance.
- \* Support TWS Bluetooth connection, when a pair of DIRECT 101MX ( or DIRECT 121MX ) are used, two speaker's Bluetooth can be set at TWS status, enabling stereo mode, set TWS to one in the pair as left channel, and the other as right channel.
- \* Extra long delay DSP setting, adjustable range 0-100 meters, 0.25 meter stepping, comes in handy in practical use.
- \* Ultra wide-angle coverage of audience area, horizontal\*vertical:100°\*30°, can effectively improve shortcoming of small vertical coverage of vertical linear sound source.
- \* Column support box, adjust the height of compact vertical array system according to usage requirement, for best sound coverage.
- \* No need for external audio cable connection, there is already cable connected to the socket inside of speakers, once the compact vertical array are docked they are ready to go, reliable connection, easy operation.
- \* Accurate 4 guide pin connection mechanism, ensuring precise assembly between speakers tightly.

DIRECT MX full-range speaker:

- \* 6\*3" neodymium magnetic full speaker, high sensitivity, good mid frequency and light weight.
- \* 1" compression drive horn speaker, NeFeB magnetic circuit, high sensitivity.
- \* Has features such as wide frequency response, high clarity, wide coverage, long-throwing distance.
- \* No need for external audio cable connection, there is already cable connected to the socket inside compact vertical array, once the compact vertical array are docked they are ready to go.

DIRECT 10MX subwoofer sound box: 这里的sound box改为speaker

- \* 1X10" ferrite magnetic circuit, rubber ring high

compliance low-frequency paper cone driver, 2" ( 50mm ) long excursion coil, high power all for, elastic low-frequency and booming effect.

- \* Birch plywood housing, high strength, light weight, arced housing contours, beautiful design.

- \* Foldable inverter tube design, small housing, good low frequency extension.

- \* Cabinet mixer with built-in 4-channel input dual-channel power amplifier, 1-in-2-out DSP module, powerful and easy to use.

DIRECT 12MX subwoofer sound box: 这里的sound box改为speaker

- \* 1X12" ferrite magnetic circuit, rubber ring high

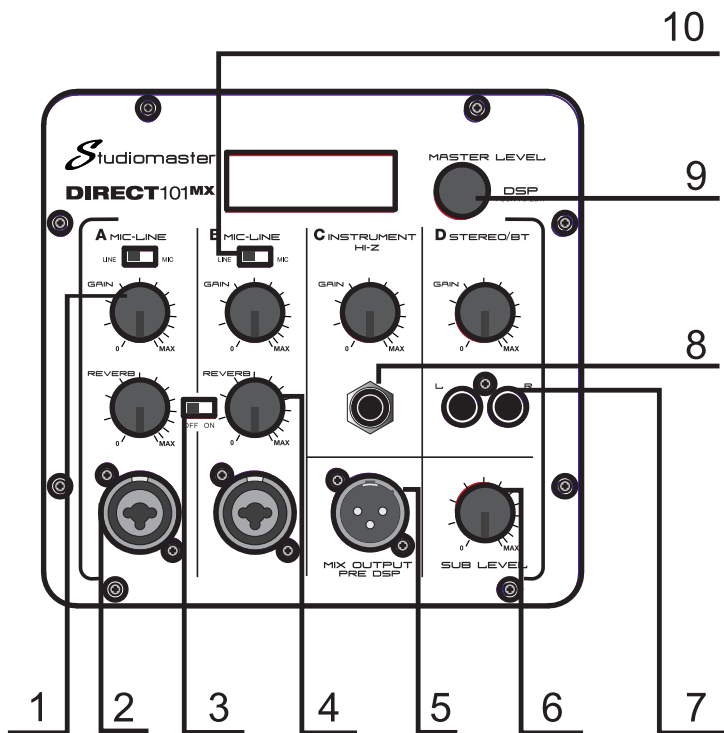
compliance low-frequency paper cone driver, 2.5" ( 63mm ) long excursion coil, high power all for, elastic low-frequency and booming effect.

- \* Birch plywood housing, high strength, light weight, arced housing contours, beautiful design.

- \* Foldable inverter tube design, small housing, good low frequency extension.

- \* Cabinet mixer with built-in 4-channel input dual-channel power amplifier, 1-in-2-out DSP module, powerful and easy to use.

## 4. Functions and controls

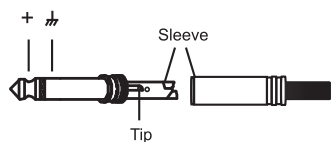


1. GAIN: Gain knob, controlling 1#-4#Input Signal separately.
2. INPUT Socket: Signal input socket. Compatible with XLR and 6.35mm JACK.
3. REVERB ON/OFF: Reverb effect switch , ON: effect on , OFF : effect off 删掉第3点, 第4点
4. REVERB : Reverb effect depth adjustment knob.
5. MIX OUPUT : Signal mixing output socket.
6. SUB LEVEL : LF volume knob.
7. LINE INPUT : RCA line signal input.
8. 6. 35mm JACK : 3# signal input socket, connected to acoustic source equipment of high input impedance like wood guitar.
9. DSP CONTROL : DSP setting function knob, you can press, rotate to set the menu.
10. LINE/MIC option switch: Toggle to select of line input and microphone input gain respectively.
11. AC power socket  
Connect the device to the mains with the supplied power cord.  
Note: Before connecting the power supply, please confirm whether the power supply voltage is correct.
12. POWER switch  
Turn on or off the power supply of the device.

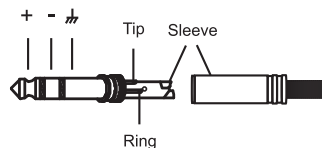


## 5. WIRING

### . For 1/4" phone jack

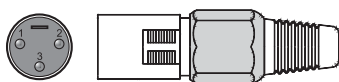


1/4" TS jack  
Unbalanced input/output



1/4" TRS jack  
Balanced input/output

### . For XLR

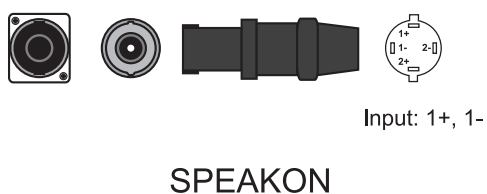


XLR(male)  
pin2=Hot, pin3=Cold, pin1=Ground



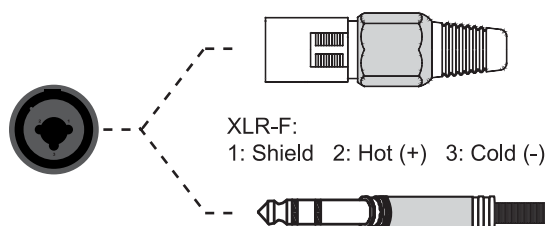
XLR(male)  
pin2=Hot, pin3=Cold, pin1=Ground

### . For SPEAKON



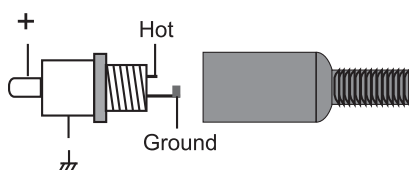
SPEAKON

### . For COMBO



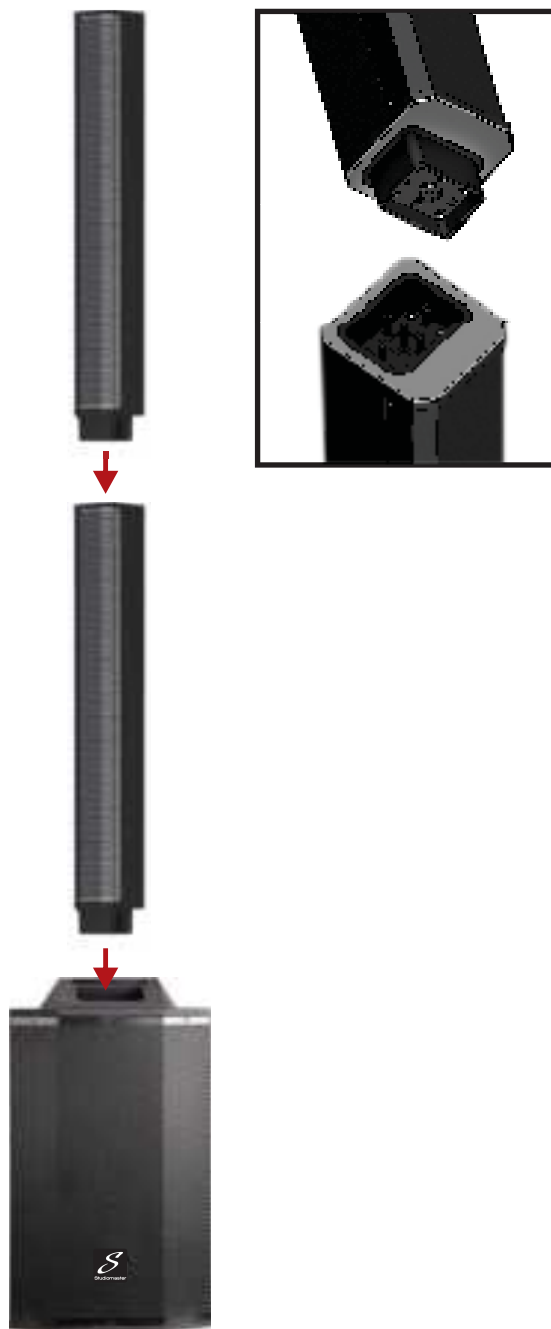
TRS  
Tip/Ring/Sleeve  
Combo-XLR jack

### . For RCA





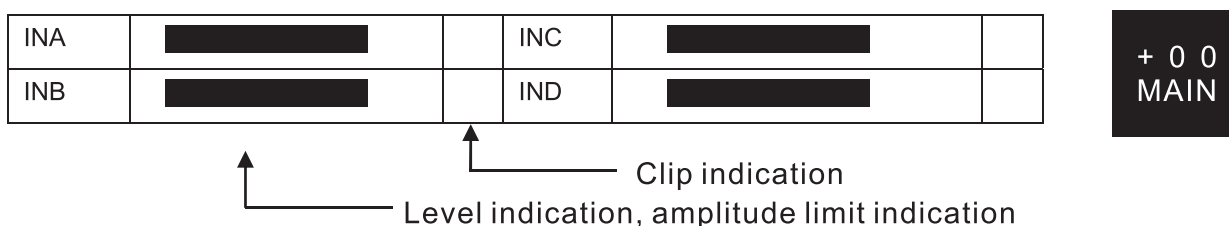
## 6. Set Up



Please assemble according to the above illustration, for standing ear level you need to install height-adjusting column, for seated ear level you don't need to install height-adjusting column.

Column speaker, height-adjusting column and subwoofer box should be seamlessly connected, please notice the direction when plugging and unplugging, do it vertically to the ground the speaker places.

## 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 being 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 to choose different functions, press menu knob to confirm.

## Detailed operation is as follows:

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

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

|         |                   |
|---------|-------------------|
| 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 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 |

|               |  |
|---------------|--|
| LCD DIM       | OFF: LCD screen is constantly on<br>ON: after 8 sec of no operation, LCD screen turns asleep |
| LOAD PRESET   | Load customized settings   |
| STORE PRESET  | Save customized settings   |
| ERASE PRESET  | Erase customized settings  |
| BRIGHT        | 5(0-10): brightness  |
| CONTRAST      | 5(0-10): contrast  |
| FACTORY RESET | Reset default--music mode  |
| INFO          | Version info   |
| EXIT          | Exit   |

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

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

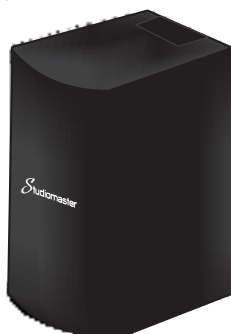
## 7. Attachment



Protective bag  
(Optional )



Suitcase  
(Optional )



Protective cover  
(Optional )

## 8. parameters:

### **DIRECT MX full frequency column speaker**

|                                   |                                      |
|-----------------------------------|--------------------------------------|
| MF                                | 6 x 3 "full range transducer         |
| HF                                | 1 x 1 "compression drive horn loaded |
| coverage (H*V)                    | 120° x 30°                           |
| Rated power                       | 180W (RMS)                           |
| Rated impedance                   | 6Ω                                   |
| Box size (width × height x depth) | 117 x 807x 124.3mm                   |
| Sound box net weight (kg)         | 5                                    |

### **DIRECT 101MX / 121MX analog mixer**

|                  |  |
|------------------|--|
| Input channel    | 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 | Mix out : XLR                          |

### **DIRECT 101MX / DIRECT 121MX amplifier**

|                 |                    |
|-----------------|--------------------|
| Rated power     | 2 x 300W RMS       |
| Frequency range | 20Hz--20kHz        |
| DSP connection  | 24bit (1-in-2-out) |

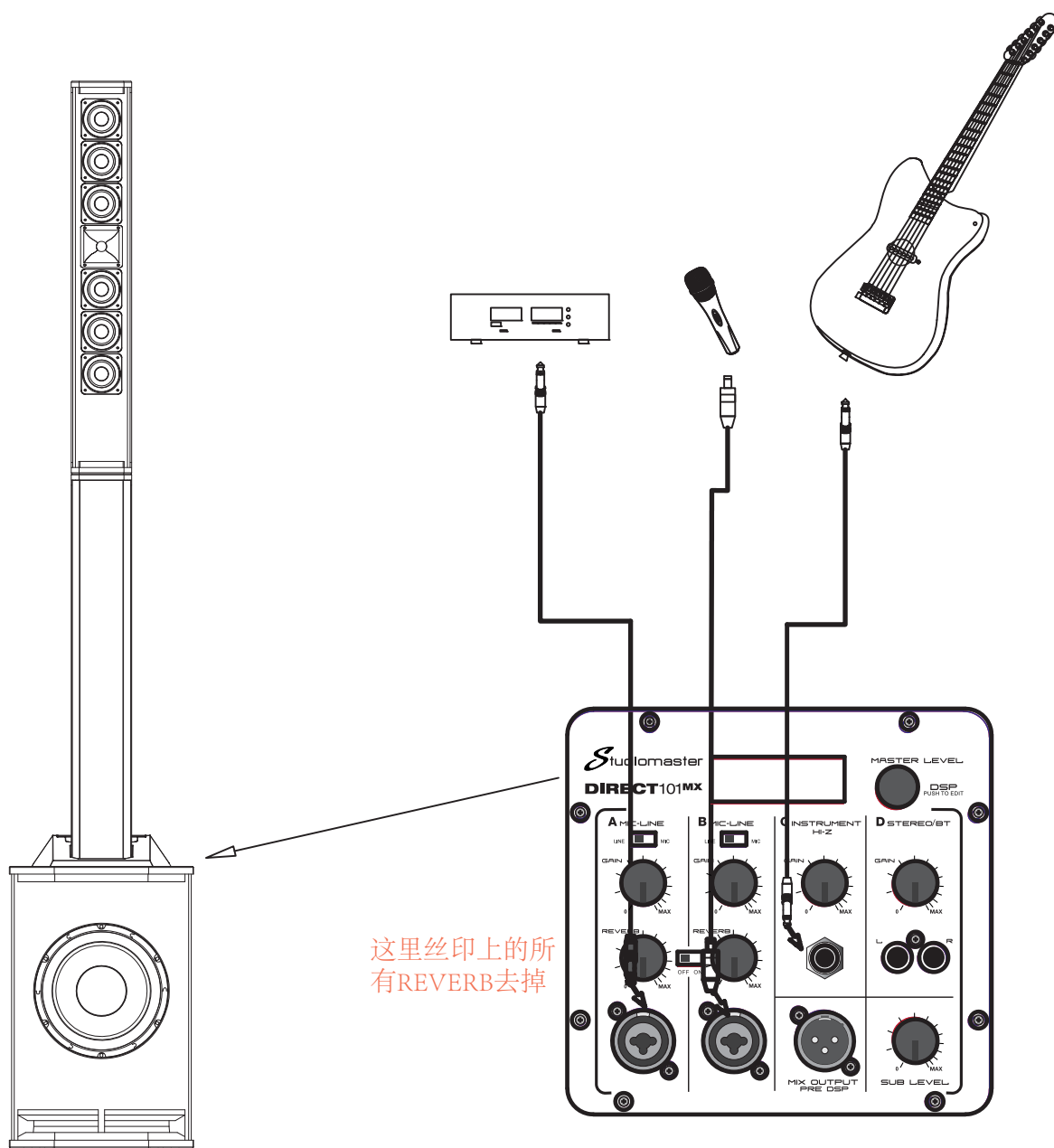
### **DIRECT 101MX subwoofer**

|                                   |                  |
|-----------------------------------|------------------|
| Speaker                           | 1 x 10" woofer   |
| Rated power                       | 250W (RMS)       |
| Rated impedance                   | 4Ω               |
| Box size (width × height x depth) | 357x 612 x 437mm |
| Sound box net weight (kg)         | 18.5kg           |

### **DIRECT 121MX subwoofer**

|                           |                   |
|---------------------------|-------------------|
| Speaker                   | 1 x 12" woofer    |
| Rated power               | 300W (RMS)        |
| Rated impedance           | 4Ω                |
| Box size (WxHxD)          | 357 x 642 x 437mm |
| Sound box net weight (kg) | 21kg              |

## 9. System connection



## 10. Packing list

|                               |      |
|-------------------------------|------|
| DIRECT MX column speaker      | 1PCS |
| Height-adjusting column       | 1PCS |
| DIRECT 101MX/121MX/ subwoofer | 1PCS |
| Power cord                    | 1PCS |
| User manual                   | 1PCS |
| Certificate                   | 1PCS |
| Warranty                      | 1PCS |

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