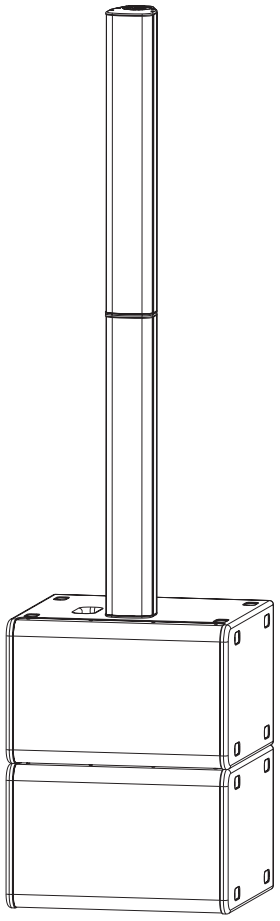
acmaudio™

OPERATION MANUAL

SLA Series



www.acmaudio.com

This manual does not include all of the details of design, production, or variations of the equipment. Nor does it cover every possible situation which may arise during installation, operation or maintenance.
The information provided in this manual was deemed accurate as of the publication date. However, updates to this information may have occurred. To obtain the latest version of this manual, please visit the ACM website at www.acmaudio.com.

CONTENTS

IMPORTANT SAFETY INSTRUCTIONS

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with a dry cloth.
7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
9) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
10) Only use attachments/accessories specified by the manufacturer.
11) Use only with a cart, stand, 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.

12) Unplug this apparatus during lightning storms or when unused for long periods of time.
13) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as powersupply cord or plug is damaged,liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

TO PREVENT ELECTRIC SHOCK DO NOT REMOVE NO USER SE. TOP OR BOTTOM COVERSRVICEABLE REFER SERVICING. PARTS INSIDE TO QUALIFIED SERVICE PERSONNEL.

MAGNETIC FIELD

CAUTION! Do not locate sensitive highgain equipment such as preamplifiers or tape decks dirctly above or below the unit. Because this amplifier has a high power density, it has a strong magnetic field which can induce hum into unshielded devices that are located nearby. The field is strongest just aboveand below the unit.

If an equipment rack is used, we recommend locating the amplifier(s) in the bottom of the rack and the pre amplifier or other sensitive equipment at the top.

:WATCH FOR THESE SYMBOLS

The lightning bolt triangle is used to alert the user to the risk of electric shock.

The exclamation point triangle is used to alert theuser to important operating or maintenance instructions.

SAFETY PRECAUTIONS

Information regarding use of loudspeakers

Never stand in the immediate vicinity of loudspeakers driven at a high level. Professional loudspeaker systems are capable of causing a sound pressure level detrimental to human health. Seemingly non-critical sound levels (from approx. 95 dB SPL) can cause hearing damage if people are exposed to it over a long period.

In order to prevent accidents when deploying loudspeakers on the ground or when flown, please take note of the following:

When setting up the loudspeakers or loudspeaker stands, make sure they are standing on a firm surface. If you place several systems on top of one another, use straps to secure them against movement.

Only use accessories which have been tested and approved by ACM for assembly and mobile deployment. Pay attention to the correct application and maximum load capacity of the accessories as detailed in our specific "Mounting instructions" or in our "Flying system and Rigging manuals".

Ensure that all additional hardware, fixings and fasteners used for installation or mobile deployment are of an appropriate size and load safety factor. Pay attention to the manufacturers' instructions and to the relevant safety guidelines.

Regularly check the loudspeaker housings and accessories for visible signs of wear and tear, and repla ce them when necessary.

Regularly check all load bearing bolts in the mounting devices.

Loudspeakers produce a static magnetic field even if they are not connected or are not in use. Therefore make sure when erecting and transporting loudspeakers that they are nowhere near equipment and objects which may be impaired or damaged by an external magnetic field. Generally speaking, a distance of 0.5 m (1.5 ft) from magnetic data carriers (floppy disks, audio and video tapes, bank cards, etc.) Is sufficient; a distance of more than 1 m (3 ft) may be necessary with computer and video monitors.

INTRODUCTION

Thank you for choosing an ACM AUDIO product.

Portability, trendy visual effect and uniform transmission of sound across the site, these are the features that our full-new ACM AUDIO SLA system can bring in a highly flexible and freely expandable system.

SLA series consists of four modules that perfectly match with each other. You can combine them into a system that suits your specific occasion. You can even add new modules subsequently to the SLA series to make a professional audio system that meets the need of a band, with several thousand kilowatts of power output. You can create an even larger system jointly with the user of SLA series, or vice versa. Where space is limited, you can place half of the system inside and the result is always satisfactory, allowing you and your audience to enjoy the truly elegant audio and visual effects of a sound amplifying system. With this system, you would never come to a deadlock for its unparalleled flexibility can always find you a way out.

The supporting seat with its built-in cable link is at the core of SLA series' connection. Functioning as a physical as well as an audio link, it can connect SLA803 to another SLA803, the spacer, SLA400SE, SLA6000SE and SLA400S. This frees the user of the worry of some cables being frequently disconnected. Various modules can be combined to create a professional audio system that is easy and quick to install.

The full-frequency unit transcending tradition is installed in an acoustic design enclosure of hinged array technology to form an audio system of modules based on the linear array principle. The built-in electronic component of SLA400SE & SLA600SE integrates multiple core technologies. Signal processing is done by a 28/56Bit, 50M digital audio processor. The system also features efficient switching power supply and dual-channel high quality digital effects.

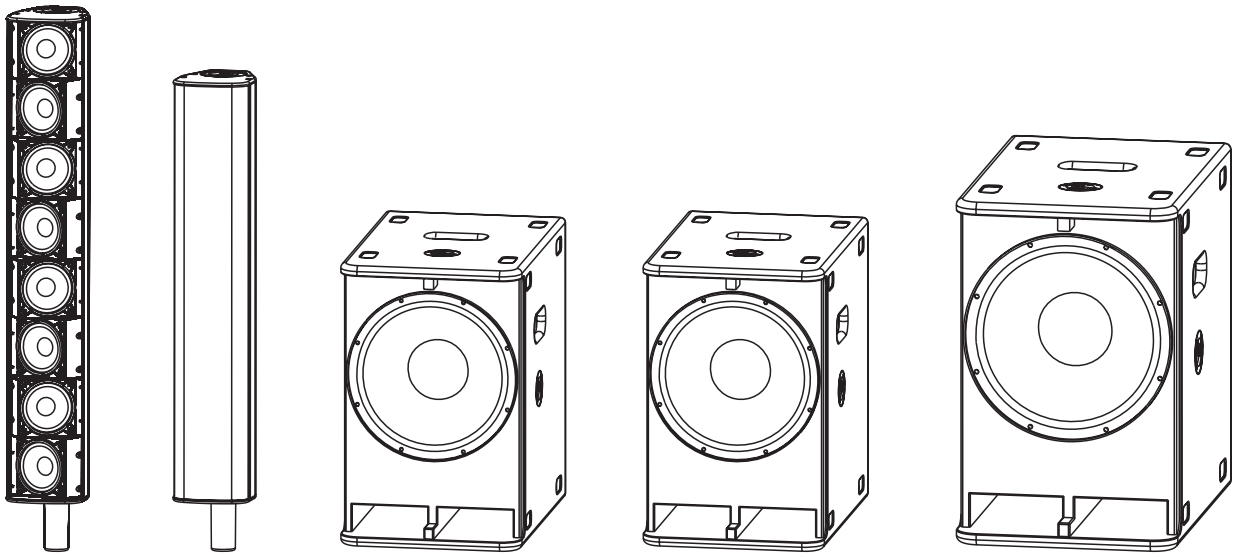
TECHNICAL CHARACTERISTICS

- **The adoption of the new-generation full-frequency unit technology with high definition and resolution gives the system natural vocal and musical performance.**
- **The acoustic structure based on the vertical linear array principle ensures accurate control of the vertical angle of spread and slow acoustic attenuation.**
- **Multiple speaker units are combined together from different horizontal angle, providing broader horizontal angle of spread.**
- **Small and modular design of the system allows for easy transportation. Correspon -ding number of modules can be quickly combined based on the size of the space.**
- **Slender all-aluminum alloy structure and built-in wiring gives the system an elegant and fashionable appearance and the convenience of easy integration into the surrounding.**
- **With built-in 56bit dual-channel DSP digital audio processor, the system can be connected to a computer via the USB port for setup as well as for program calling, storage and debugging.**
- **The system features two-circuit power supply and 700W new-type digital amplifier, delivering high efficiency, large power and excellent sound quality.**

INSTALLATION & CONNECTION

Modular Installation:

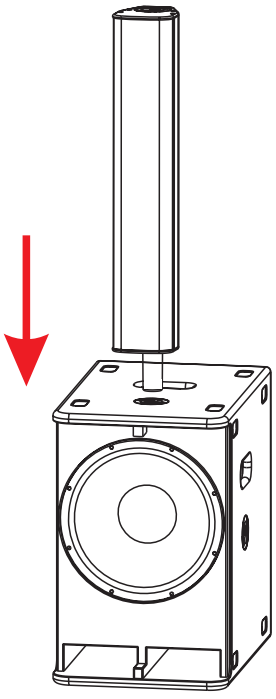
SLA803:Full frequency speakers
SLA400SE:Active subwoofer (Built-in signal processing)
SLA400S:Passive subwoofer
SLA600SE:Active subwoofer (Built-in signal processing)
SPACER:Interval connection components



SLA803 *SPACER 600* *SLA400SE* *SLA400S* *SLA600SE*

Modular Installation:

Important: Installation must be done while the system is off !
To install, first place the subwoofer on a smooth and firm ground or other flat surface (The subwoofer can be placed vertically or horizontally as needed). Then vertically insert the SPACER or SLA803 into the aluminum-alloy supporting seat of the subwoofer. Next, vertically inserting another SLA803 into the aluminum-alloy supporting and connecting seat on the top of the SPACER or SLA803 which have just been connected to the subwoofer. If both the SLA400SE and SLA400S shall be used simultaneously, the two subwoofers may be stacked vertically or horizontally. It is recommended to place SLA400SE at the bottom to achieve neat wiring. After that, connect SLA400SE and SLA400S with the SPEAKON box core cable before installing the SPACER or SLA803.

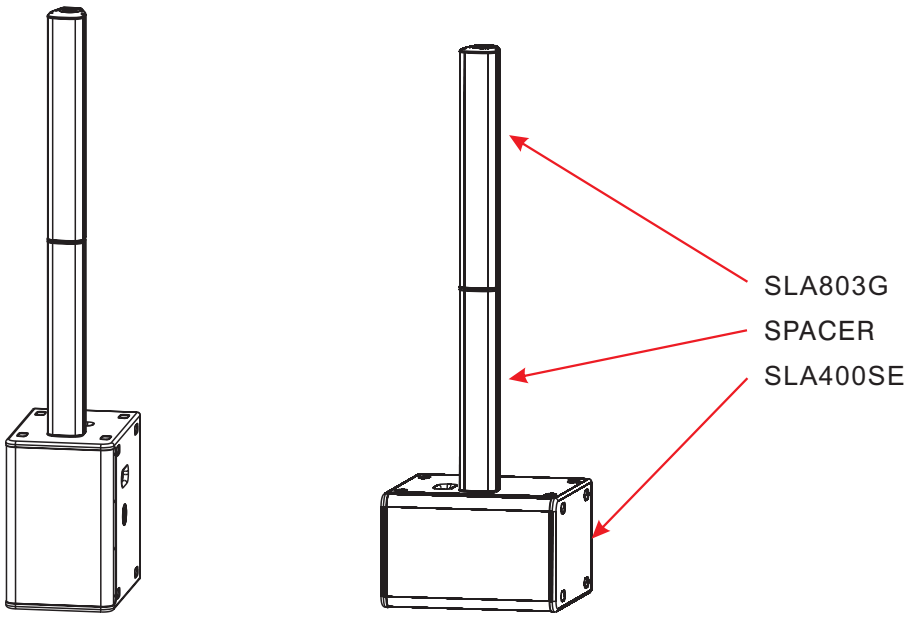


Each SLA400SE can drive at most two SLA803S and one SLA400S!

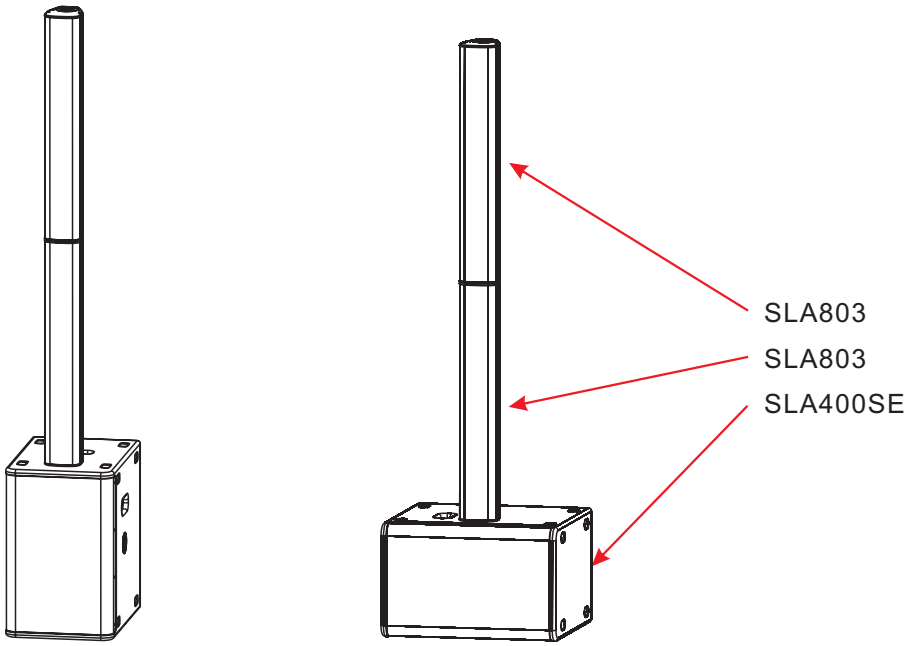
Each SLA600SE can drive at most two SLA803 and does not support passive subwoofer expanding.

Combination Mode

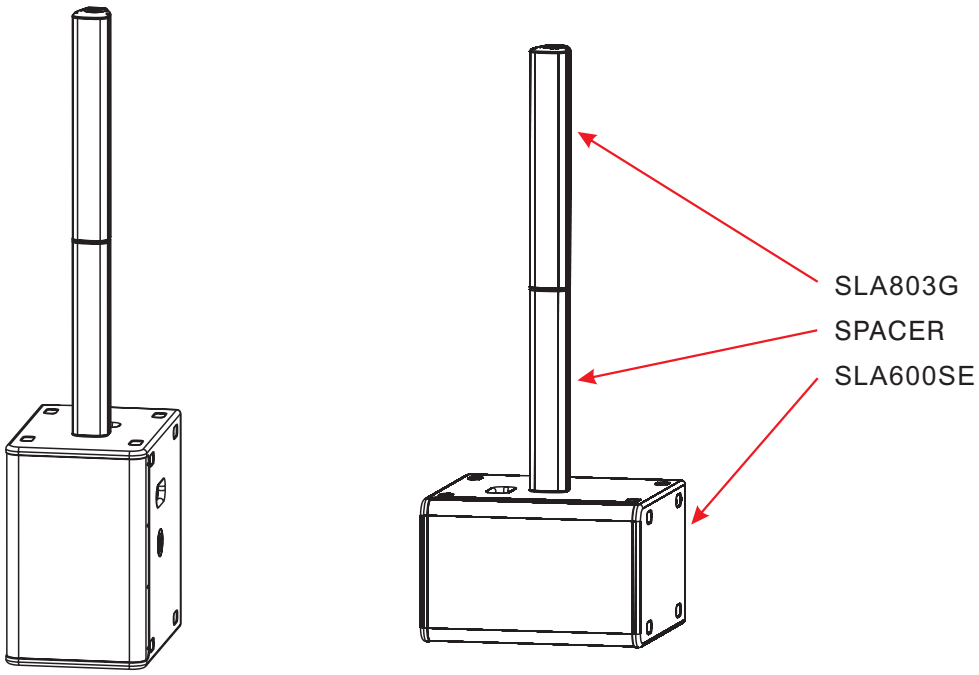
MODE 1.12



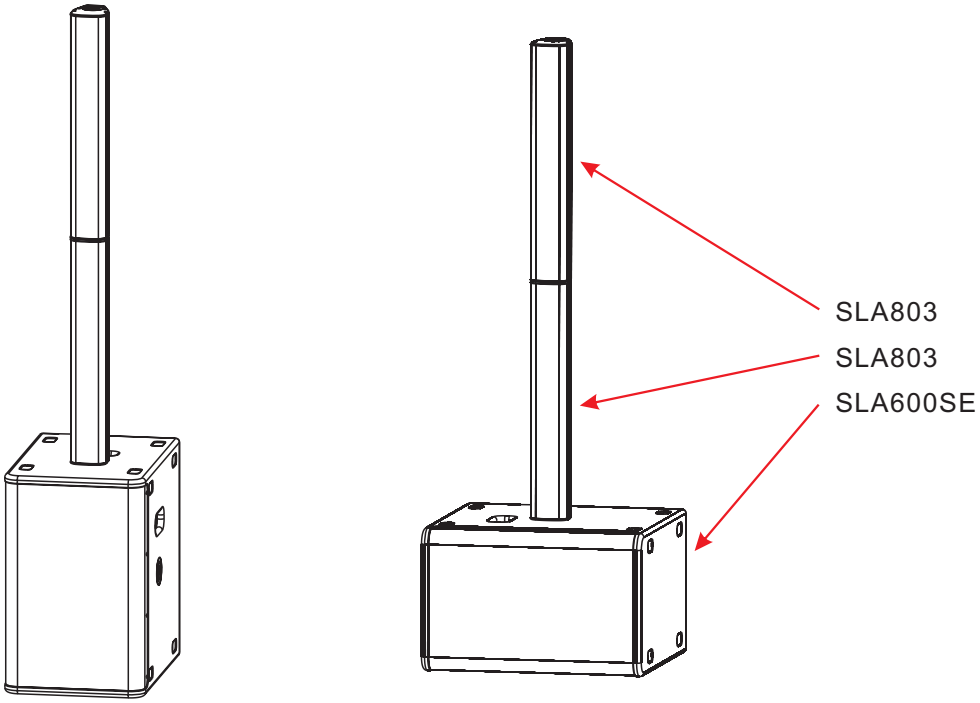
MODE 2.12



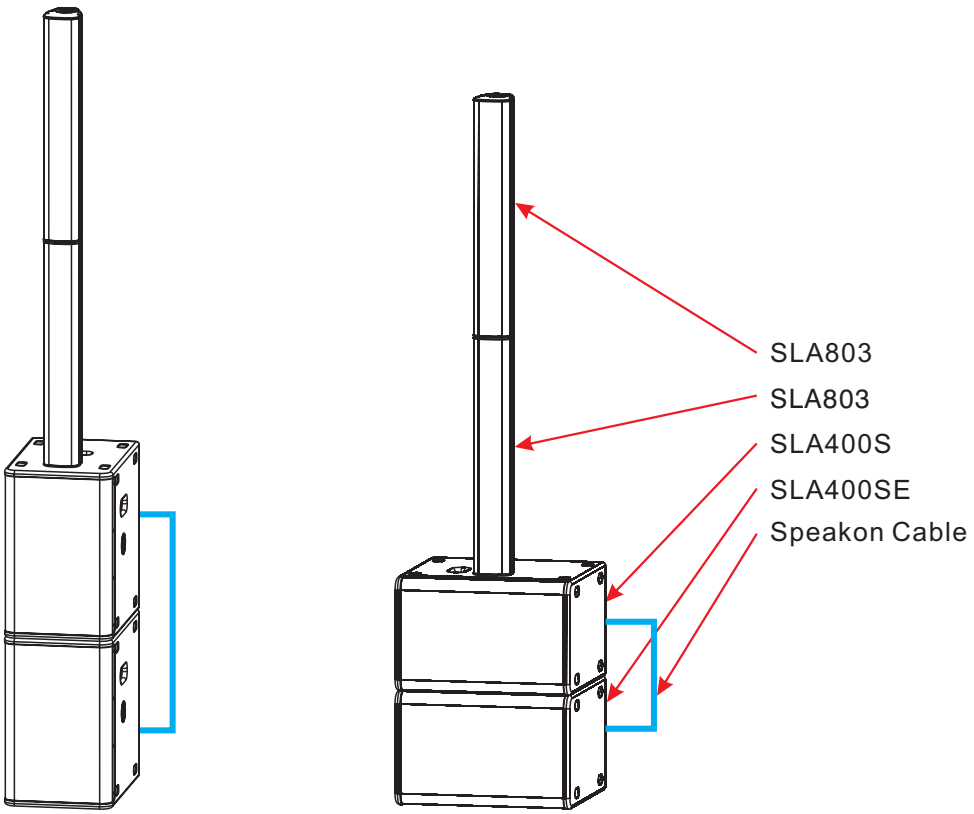
MODE 1.15



MODE 2.15



MODE 2.122



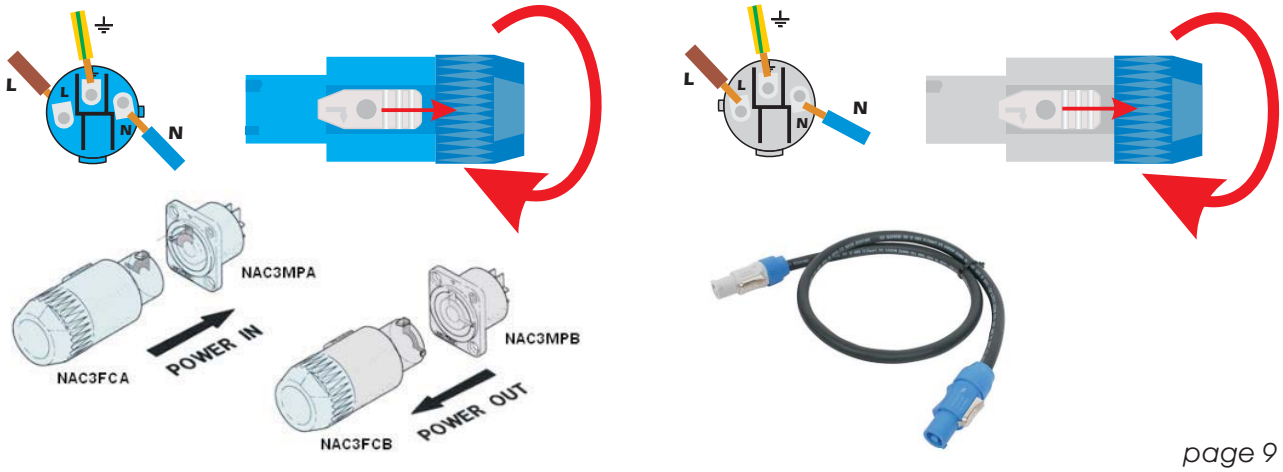
System Connection

Power Connection

PowerCON is used for AC power input and cascade connection of SLA400SE and SLA600SE. The blue one is for input and the grey one for output. To connect, plug in based on the color and the gap in the plug and socket and rotate clockwise by 45 degrees, the plug will be locked automatically; to unplug, press the unlocking slider backward and rotate counterclockwise by 45 degrees to unplug. Notice: In case of cascade connection, the maximum number of connection should not be over 3!

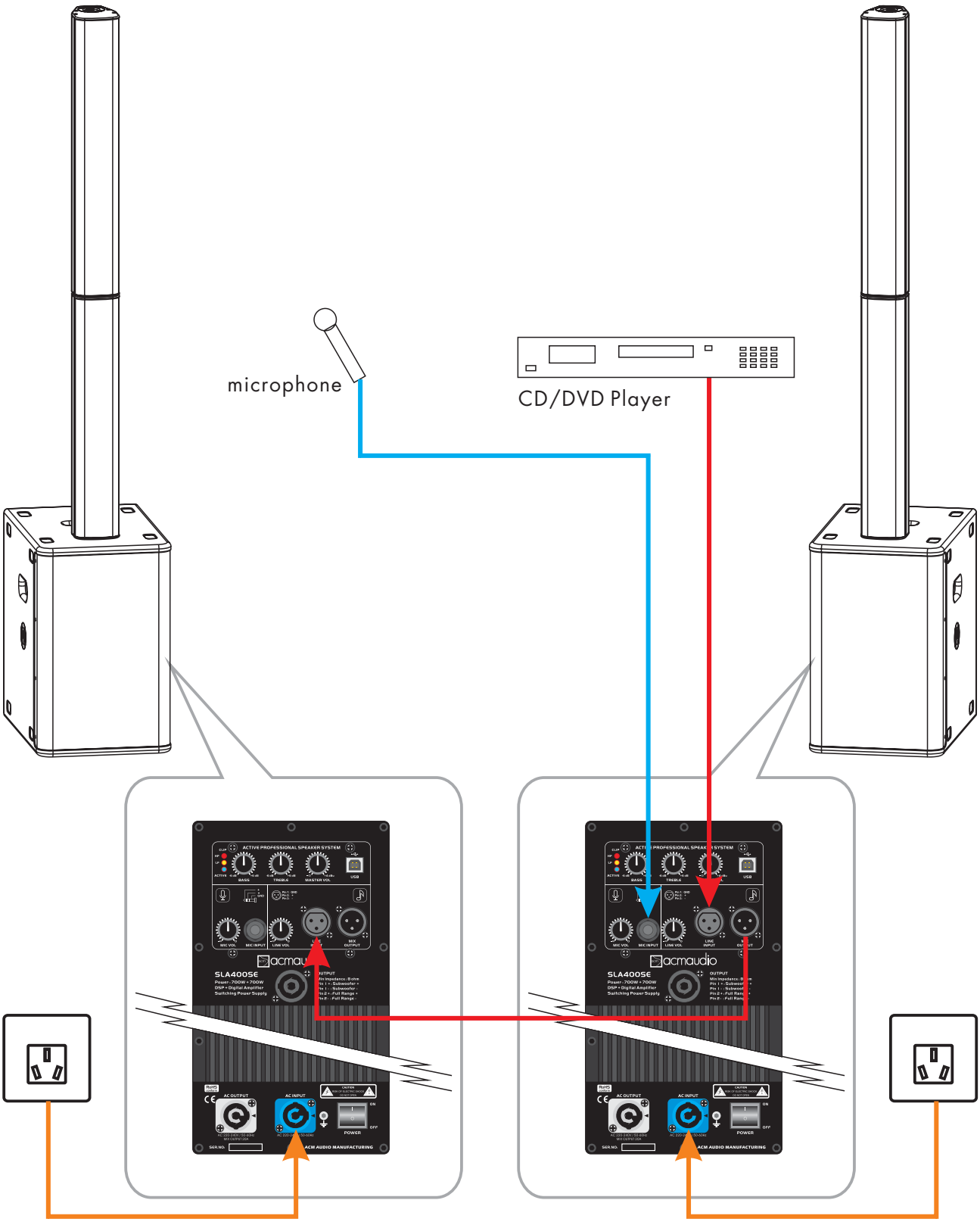
Use the 2.5mm^2 national-standard power cord or American-standard three-core sheathed cable (No. 13)!

PowerCON wiring definition see below:



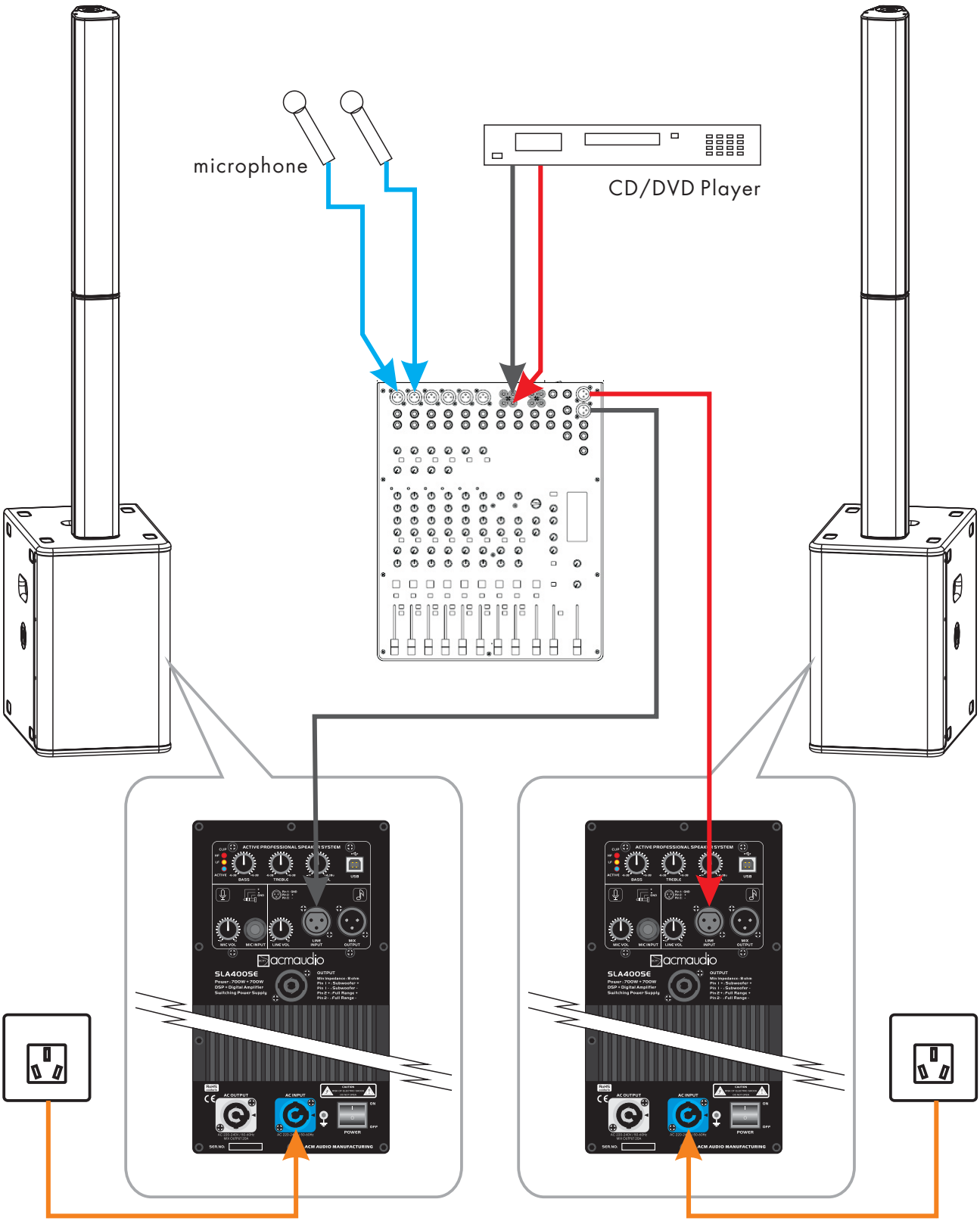
Signal Connection

MODE 1.12、MODE2.12、MODE1.15、MODE2.15 Mono signal cascade.



Signal Connection

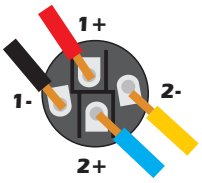
MODE 1.12、MODE2.12、MODE1.15、MODE2.15 Stereo signal connection.



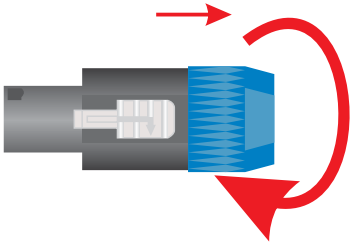
Connection For Passive Subwoofer Expanding

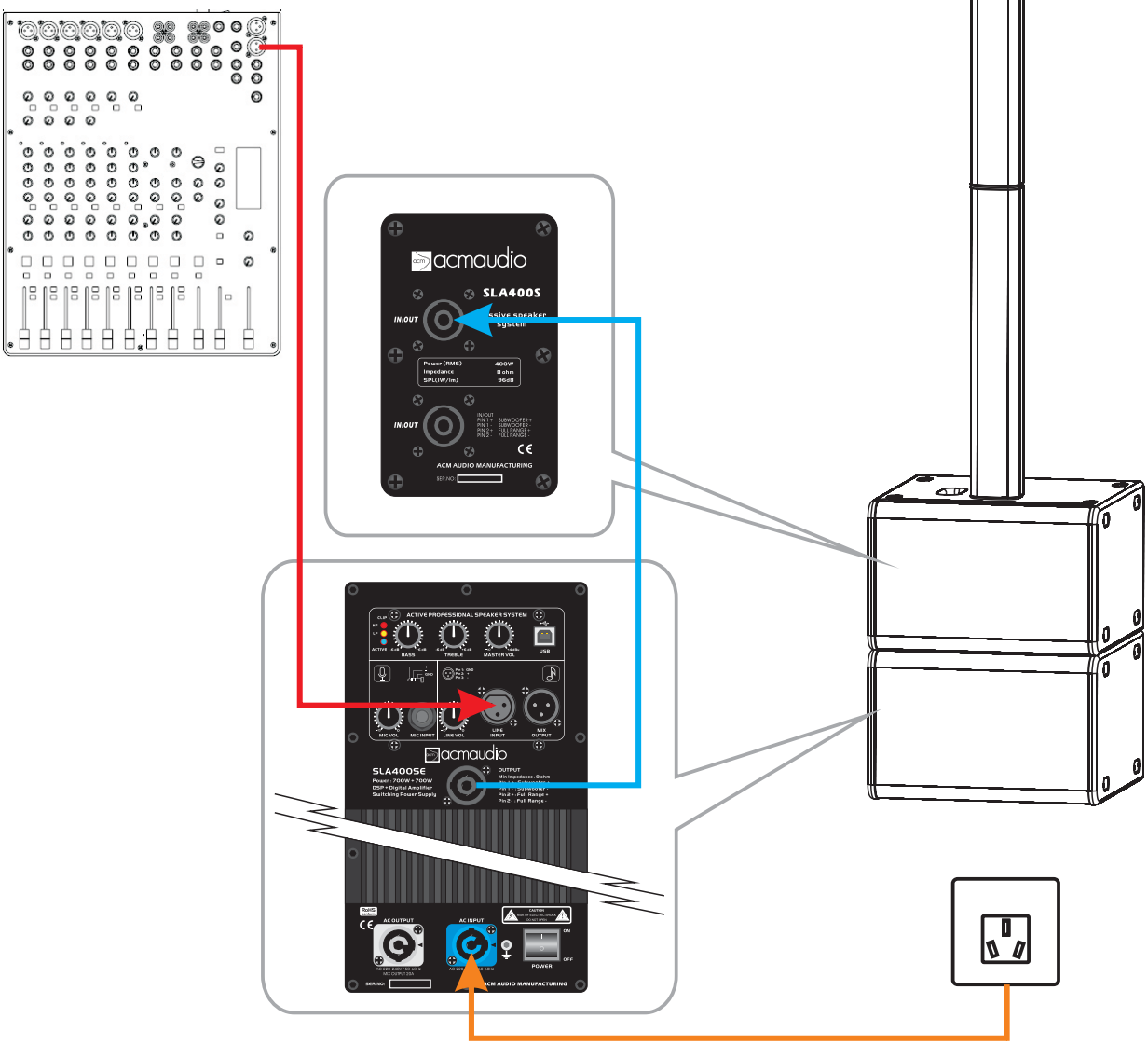
The signal connection of MODE 2.122 is the same as that of MODE1.12, MODE2.12, MODE1.15 and MODE2.15. It requires the additional connection of the speaker cable for expanding the passive subwoofer. SPEAKON is used for output connection. To connect, simply plug in based on the gap in the plug and socket and rotate clockwise by 45 degrees which automatically locks the plug. To unplug, press the unlocking slider backward and rotate counterclockwise by 45 degrees to unplug. Use the 2.5mm^2 national-standard Speaker cord or American-standard four-core sheathed cable (No. 13) !

SPEAKON wiring definition as follows:



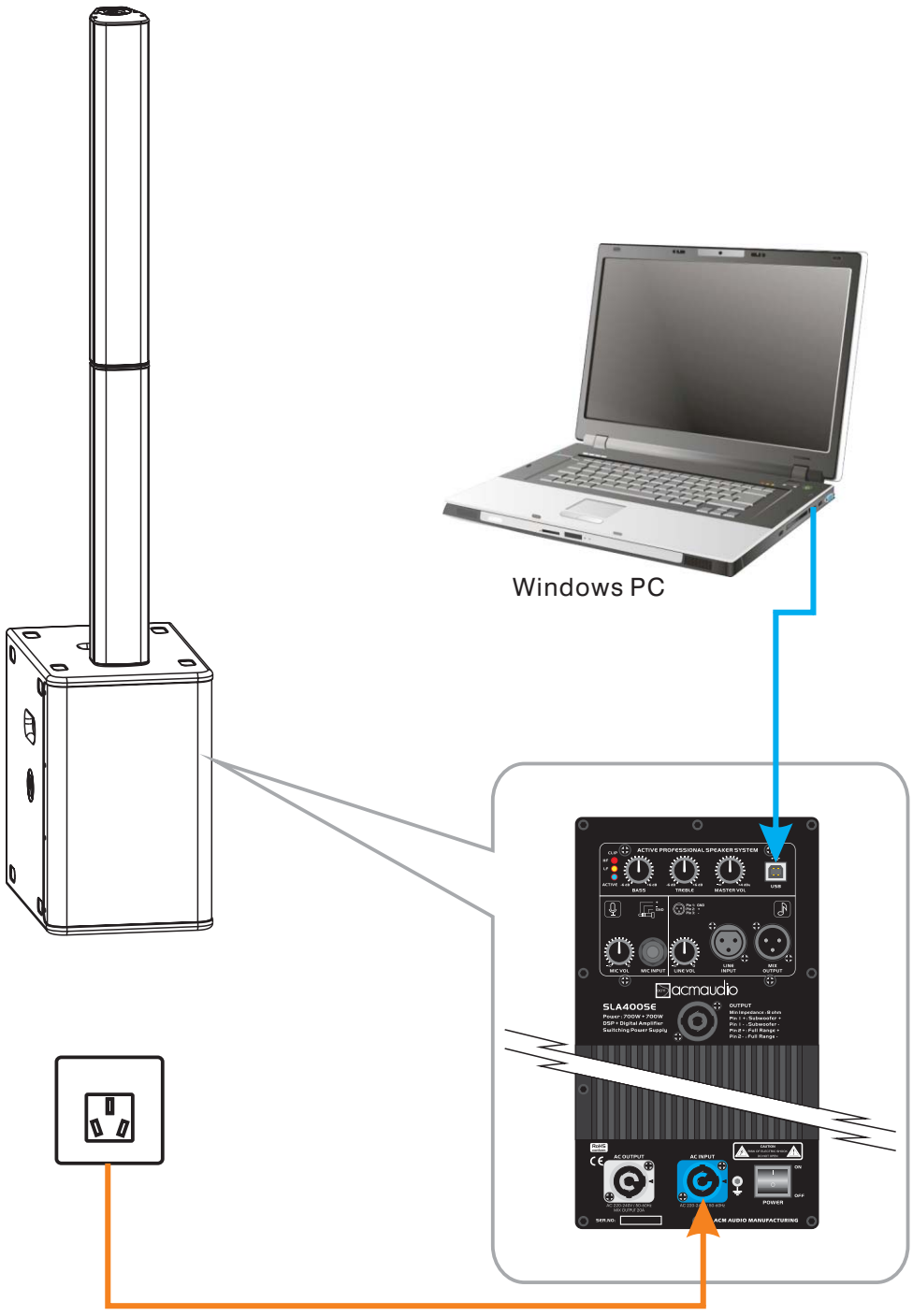
PIN DEFINITION
Pin 1 + : Subwoofer +
Pin 1 - : Subwoofer -
Pin 2 + : Full Range +
Pin 2 - : Full Range -





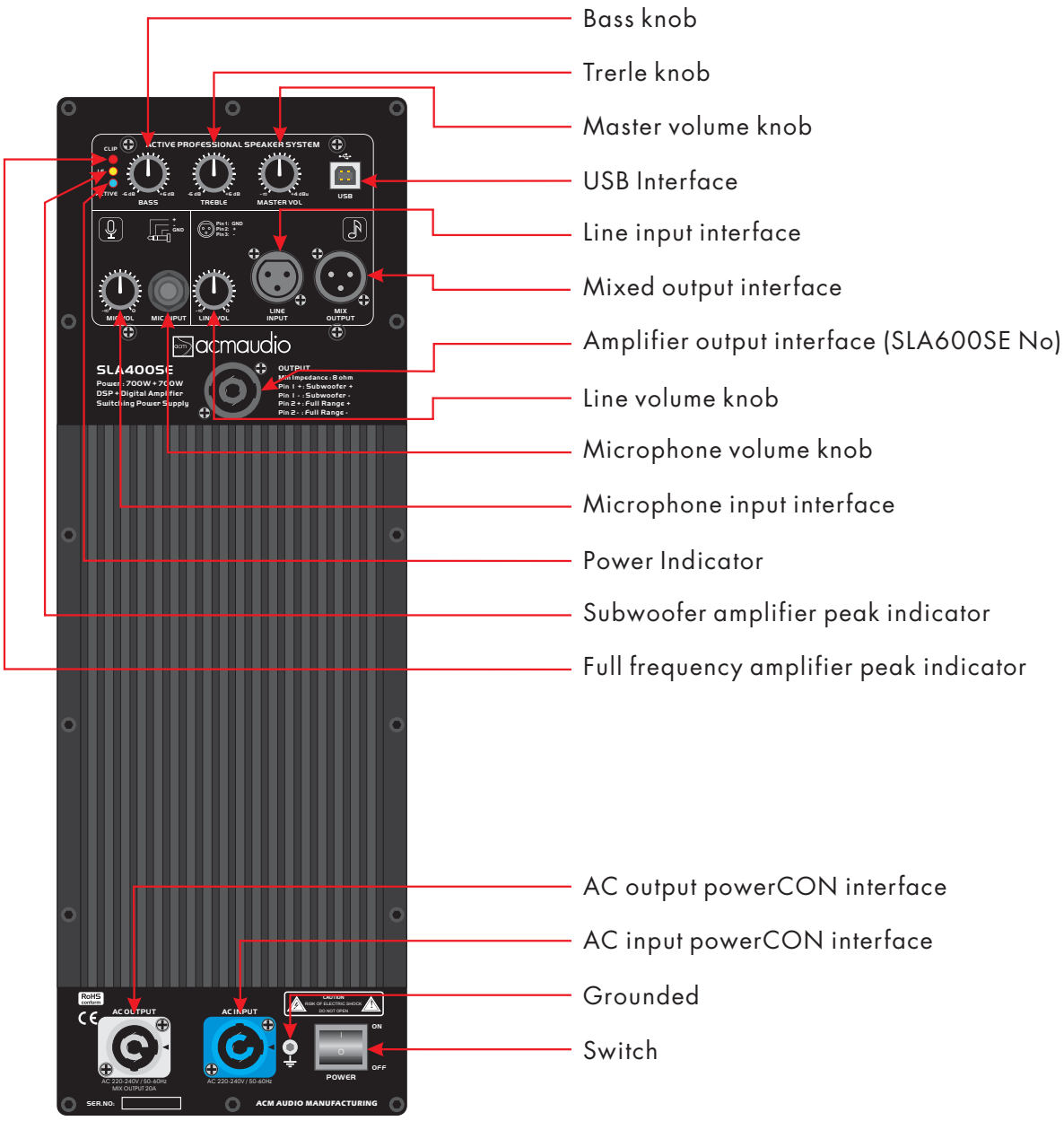
Connection For Computer Debugging

With a built-in DSP digital processor, SLA400SE and SLA600SE can be connected via an USB cable to Window computer for adjusting, retrieving and saving the parameters of the built-in DSP processor. It supports Windows XP, Windows 7, Windows 8, and Windows 10 system.

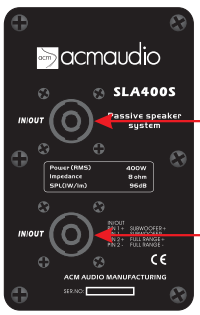


FUNCTION DESCRIPTION

SLA400SE&SLA600SE Description of the functions of the rear panel:
All the functions of the system are on the active subwoofer, as shown in the figure below:



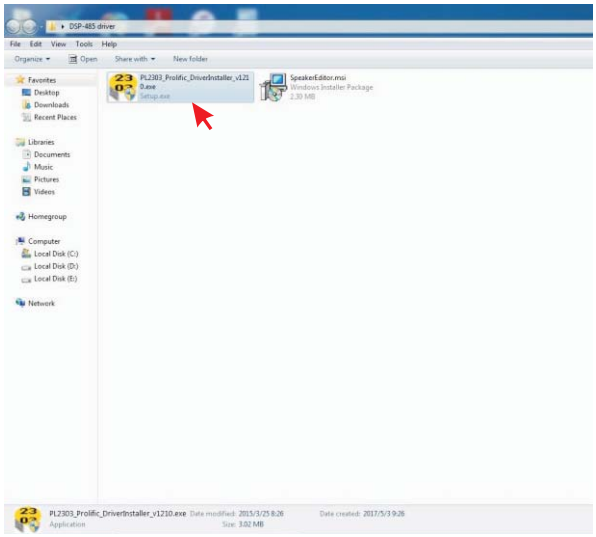
Passive Subwoofer SLA400S, Specific features as shown below:



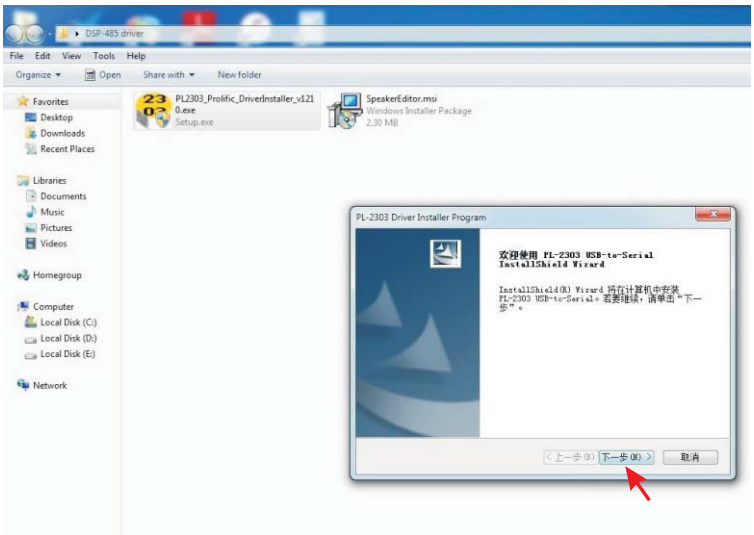
Input SPEAKON interface

INSTALL USB DRIVER

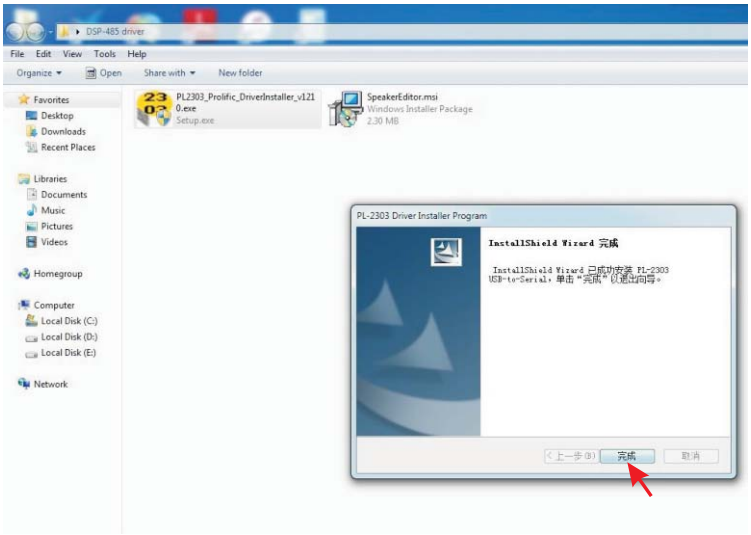
Open DSP DISK CD, double-click "Pl2303_Prolific _DriverInstaller_v1210" Software.



Click (Next).



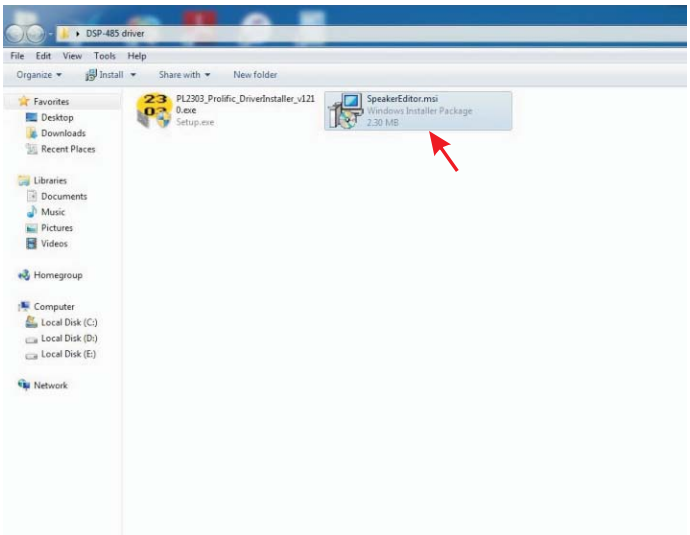
Click (Finish) to complete the installation of the driver.



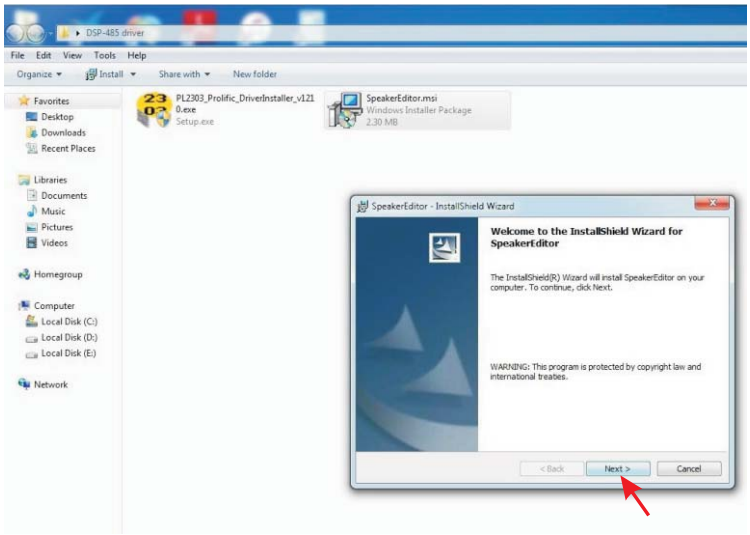
INSTALL THE PROCESSOR EDITING SOFTWARE

This is connected to the USB cable, the computer will be prompted to find new hardware and automatically load the driver.

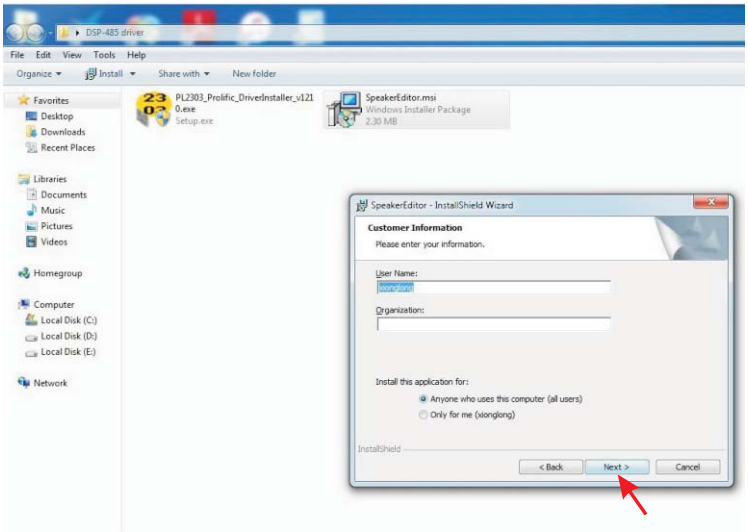
Open DSP DISK CD, double click "DSP Speaker Editor Setup" Software.



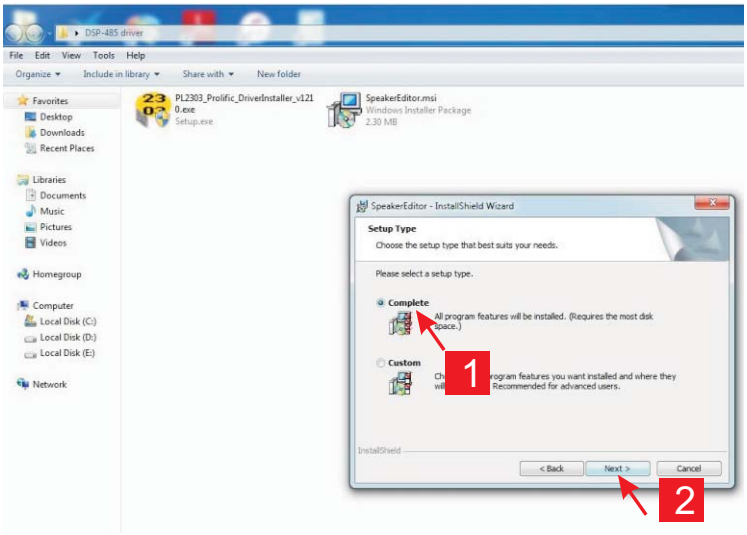
Click (Next).



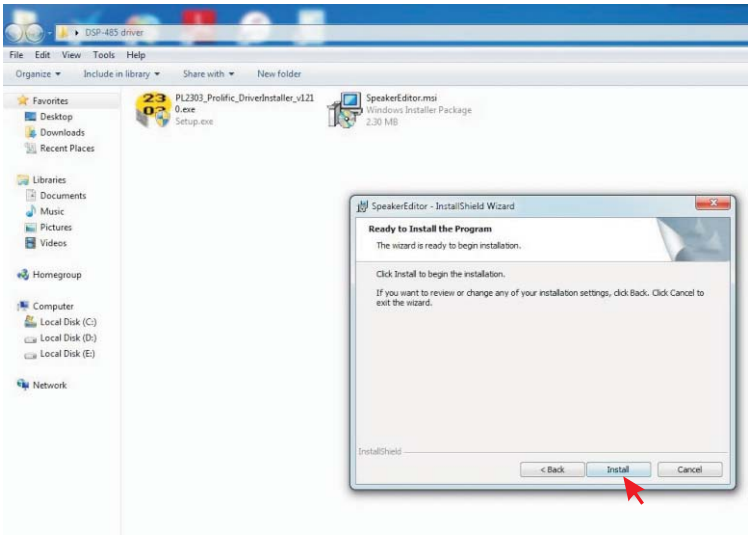
Fill in the user name and company name, and then click (Next).



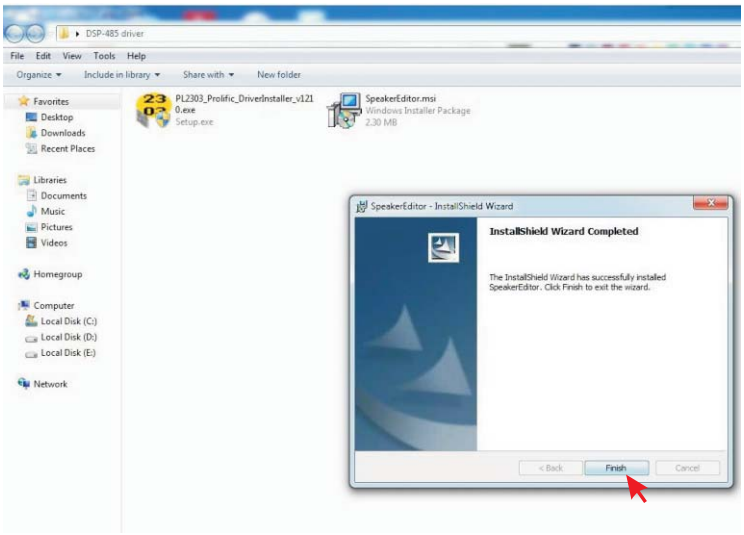
Select "Complete" and then click (Next).



Click (Install).

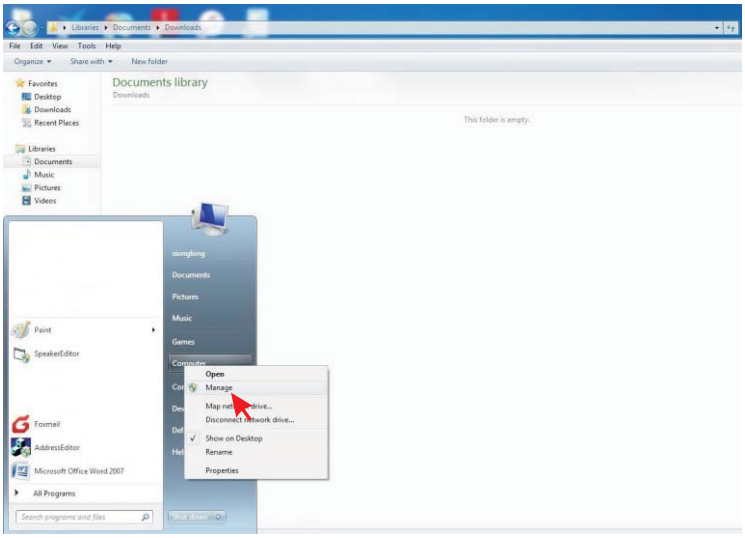


Click "Finish", to complete the installation.



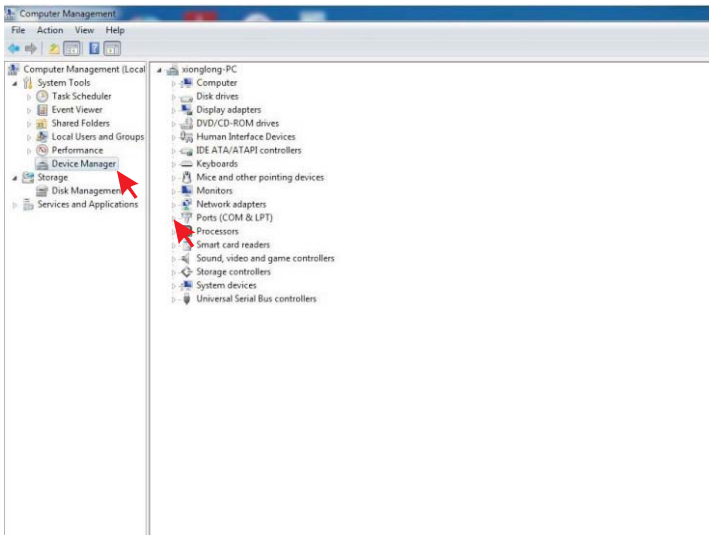
SEE COM VALUE

View the USB connection com address. Click the "Start" mouse on the "My Computer" icon , Right-click the mouse, and then click (Manage).

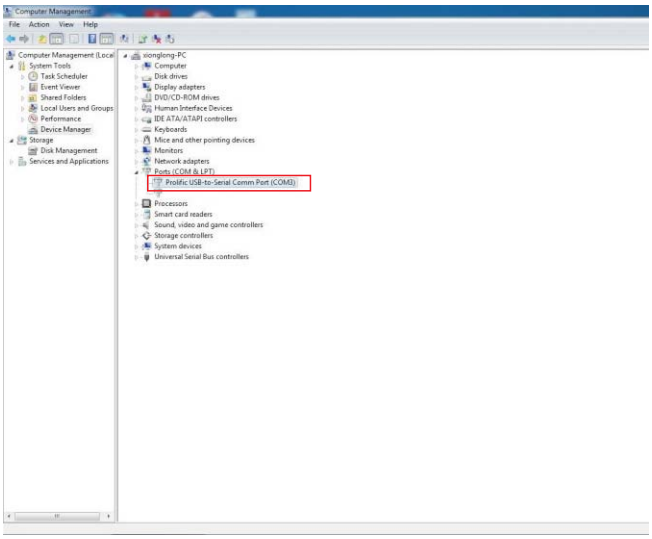


Click the "Hardware" and then click on (Device Manager).

Click on "port (com and LPT)" option, you can see "Prolific USB-to-Serial Comm Port (COMX)



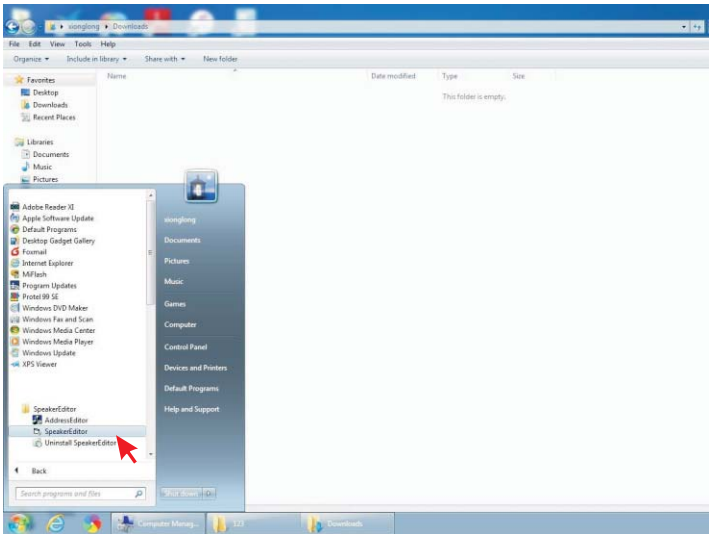
COM address the red circle is your USB-to-Serial Comm Port occupied Remember this COM value!



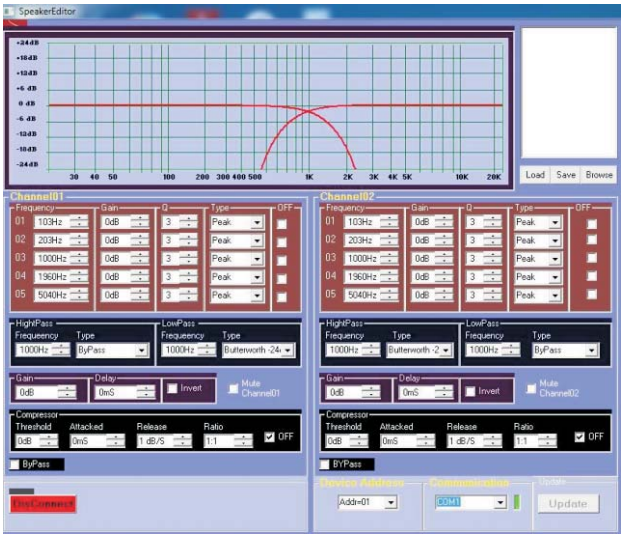
USE PROCESSOR SOFTWARE

Turn on the power switch on the speaker to be connected.

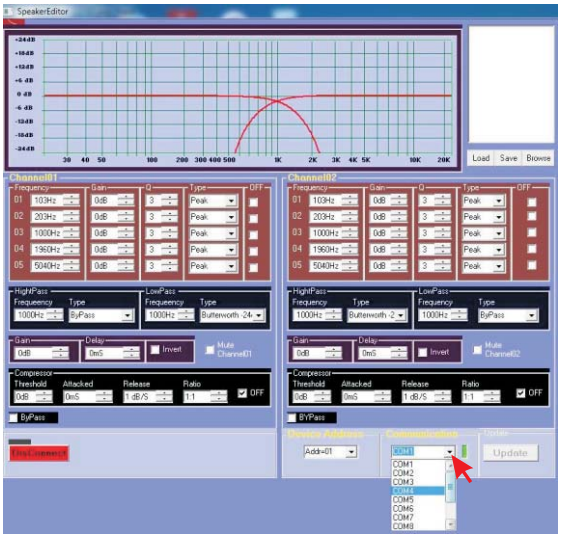
Click on the computer's "Start" to move the mouse to the "All Programs" and find "speaker editor" program, click Run.



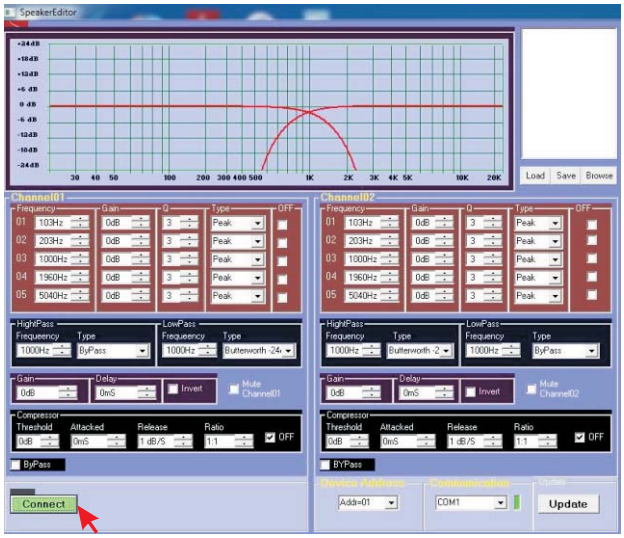
"Speaker editor" program to open as shown.



Click "Commumication" COM value option just to view.If you choose the right, choose healthy next instruction will turn green.
Select the speaker you want to debug ID address, "Device Address" address factory setting is usually "addr = 01".



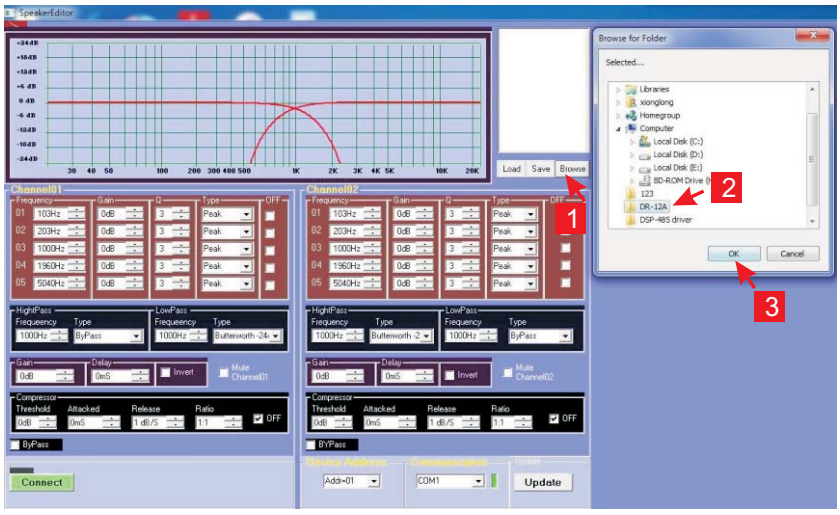
Click the (Connect) to connect to speakers, the connection is completed (Connect) above the indicator turns green.



Click on "Update" to download the current speaker setup data.
You can now change the parameter settings you need according to your requirements.
After you change the data in real time in the presence of DSP speaker.

Loading and saving parameter setting procedure.

Click "Browse" to set the computer catalog Kin parameter settings stored procedures, and then OK.

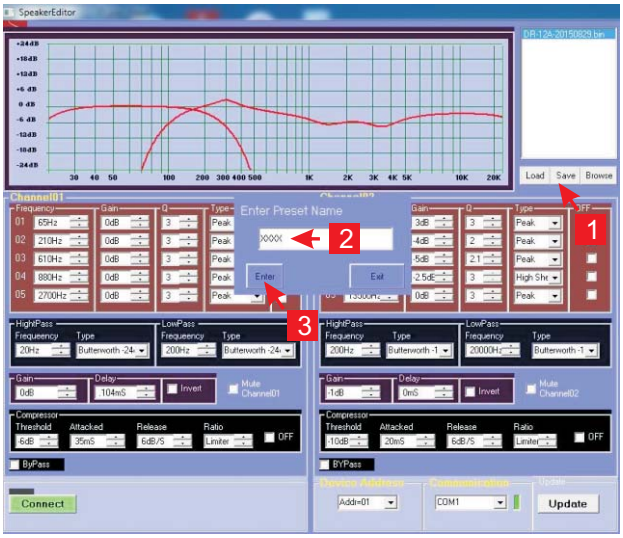


Load parameter setting procedure.

Select the name of the parameter that you need to load the setup program, and then click "Load".

Save the parameter settings to the computer program.

Click "Save" input parameter setting program name, then click "Enter".



SPECIFICATIONS

Combination Mode System Specifications

Combination Mode	Mode1.12	Mode2.12	Mode2.122	Mode1.15	Mode1.15
Frequency Range(-10dB)	45 Hz - 18 kHz	45 Hz - 18 kHz	45 Hz - 18 kHz	40 Hz - 18 kHz	40 Hz - 18 kHz
Frequency Response(-3dB)	50 Hz - 17 kHz	50 Hz - 17 kHz	50 Hz - 17 kHz	45 Hz - 17 kHz	45 Hz - 17 kHz
Rated System Power(Continuous)	580 W	700 W	1050 W	930 W	1050 W
Rated System Power(Peak)	1160 W	1400 W	2100 W	1860 W	2100 W
Max SPL Long-term@1m	121 dB	123 dB	127 dB	126 dB	126 dB
Max SPL Peak@1m	124 dB	127 dB	130 dB	129 dB	129 dB
Horizontal Coverage	115°	115°	115°	115°	115°
Vertical Coverage	20°	10°	10°	20°	10°

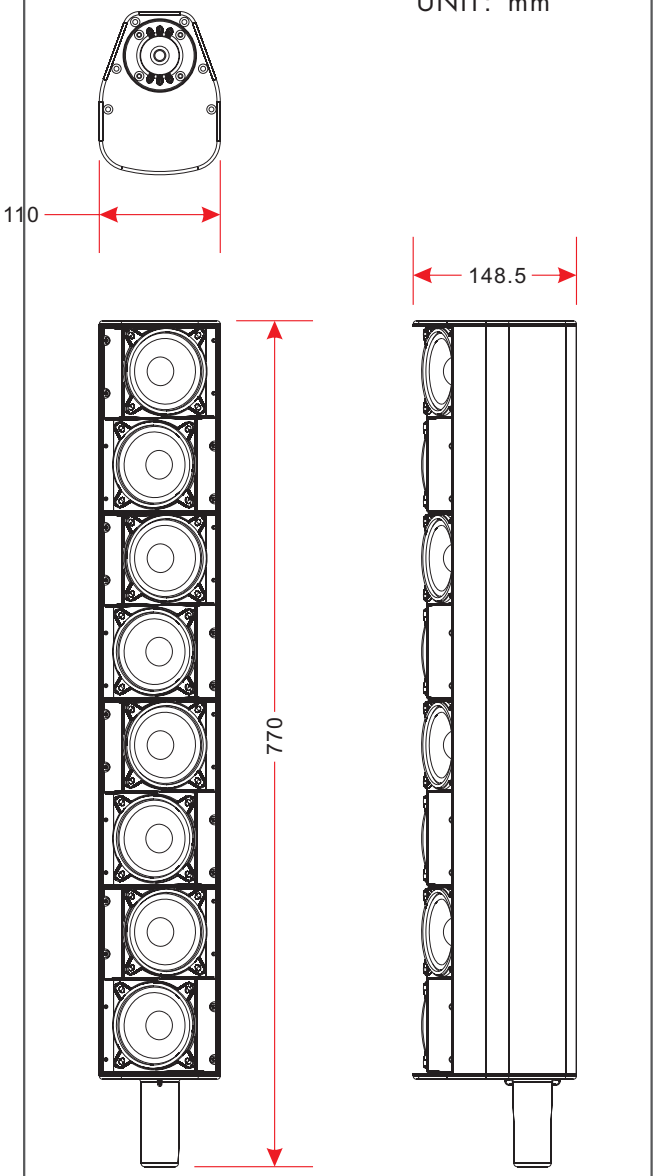
Model Specifications

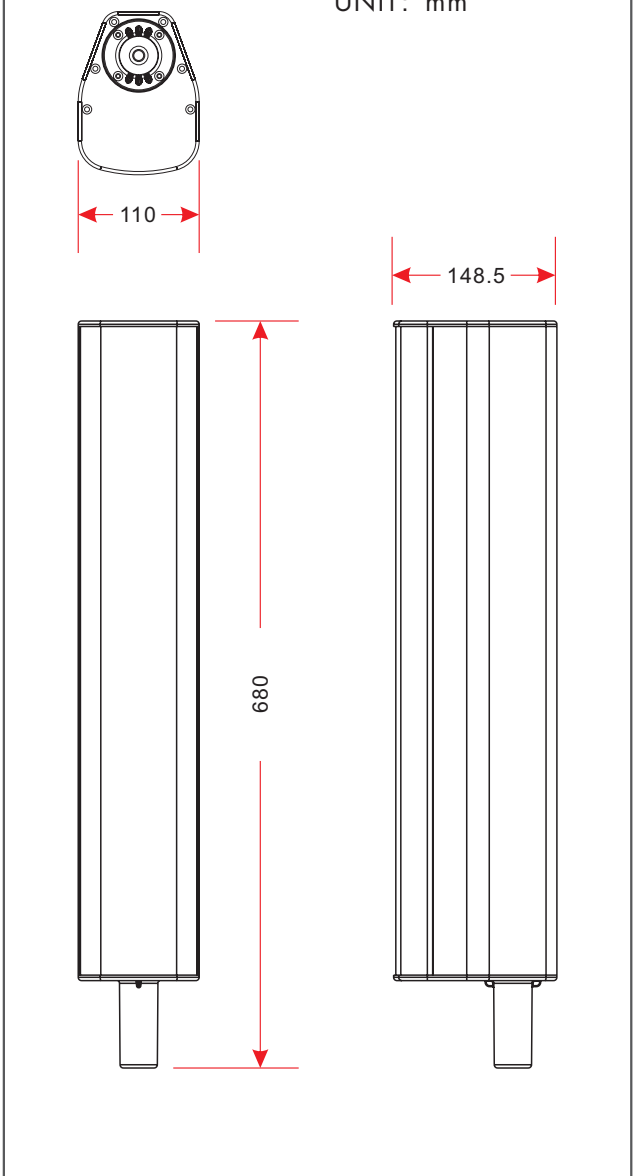
Model	SLA803	SLA400S	SLA400SE	SLA600SE
Frequency Range(-10dB)	110 Hz - 18 kHz	45 Hz - 200 Hz	45 Hz - 200 Hz	40 Hz - 200 Hz
Frequency Response(-3dB)	135 Hz - 17 kHz	50 Hz - 200 Hz	50 Hz - 200 Hz	45 Hz - 200 Hz
Max SPL Peak@1m	120 dB	125 dB	124 dB	129 dB
Rated Power(Continuous)	160 W	400 W	N / A	N / A
Rated Power(Peak)	320 W	1600 W	N / A	N / A
Sensitivity (1M/1W)	95 dB	96 dB	96 dB	98 dB
Nominal Impedance	16 ohms	8 ohms	8 ohms	4 ohms
Horizontal Coverage	115°	N / A	N / A	N / A
Vertical Coverage	20°	N / A	N / A	N / A
Transducers	8×3 Inch/19mm	1×12 Inch/75mm	1×12 Inch/75mm	1×15 Inch/100mm
Signal Processing	N / A	N / A	28-/-56 Bit, 50M Digital Audio Processor	
Amplifier Type	N / A	N / A	Class D	
Amplifier Power (RMS/4 ohms)	N / A	N / A	2×700W	
Input Impedance	N / A	N / A	Balanced 20 K ,Unbalanced 47 K	
Input Connector	1/4" Jack	NL4 Speakon	Line : XLR , Mic : 1/4" Jack	
Output Connector	1/4" Jack	NL4 Speakon	XLR	
AC Input	N / A	N / A	220V ~ 240V , 50/60 Hz	
AC Output	N / A	N / A	220V ~ 240V , 50/60 Hz , Max 20 A	
Dim (W × H × D) mm	110×770×148.5	330×515×490	330×515×490	405×580×550
Net Weight	7.6 kg	22 kg	23.5 kg	33 kg
Shipping Weight	8.6 kg	24 kg	25.5 kg	36 kg

Disclaimer

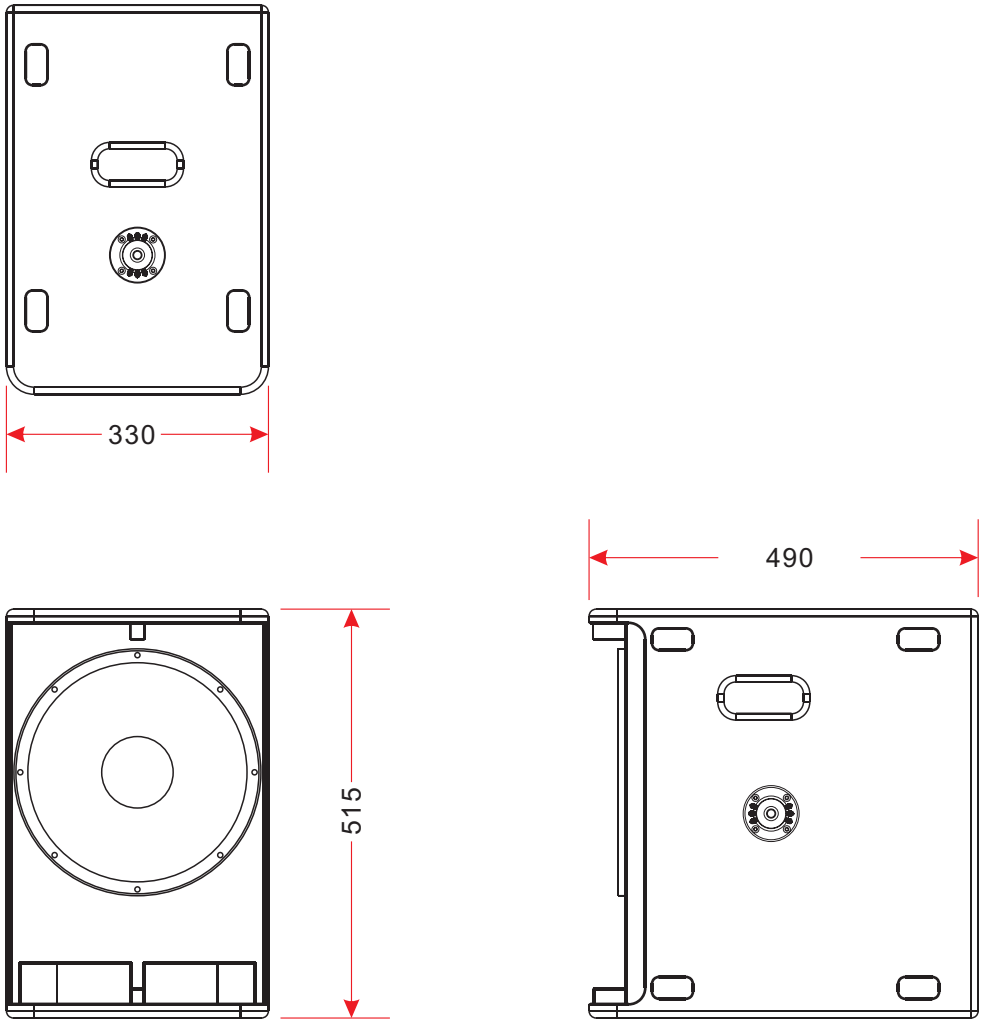
Since we are always striving to make our products better by incorporating new and improved materials, components, and manufacturing methods, we reserve the right to change these specifications at any time without notice.

MECHANICAL DRAWING

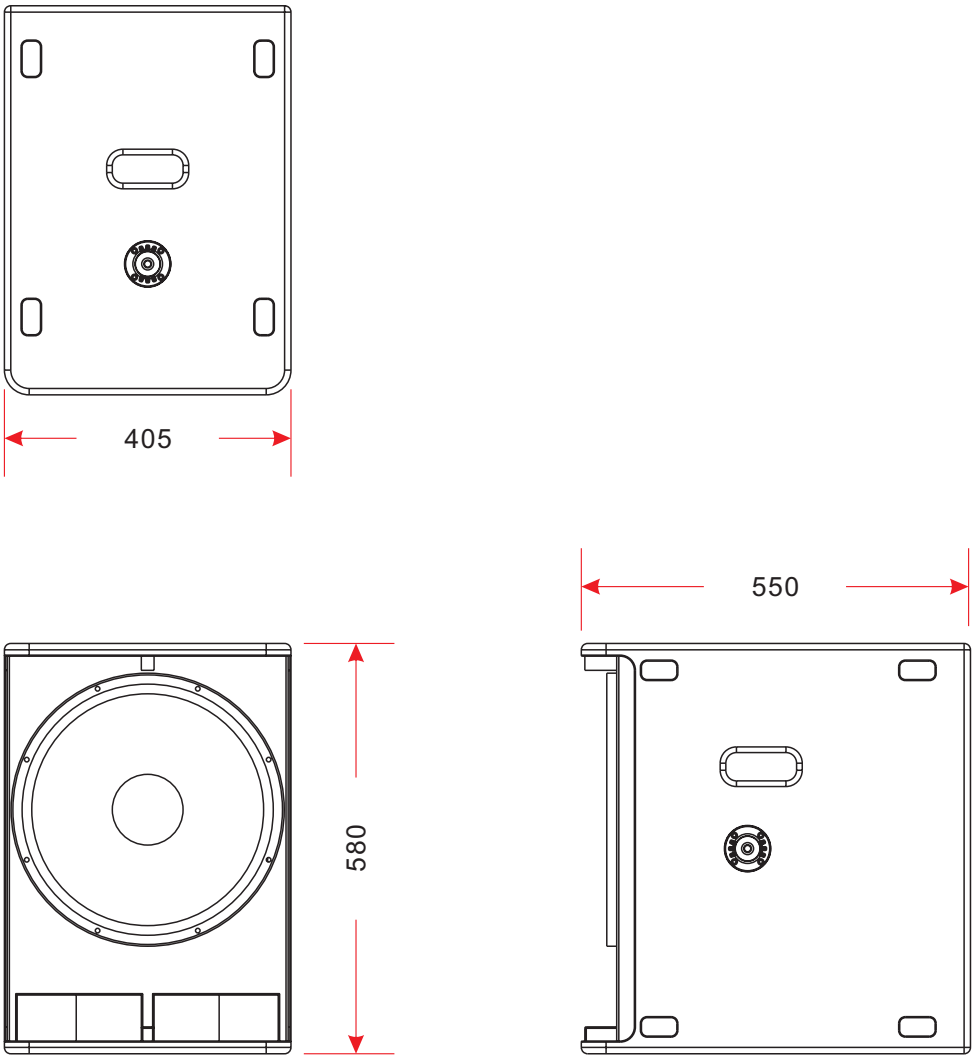




Model: SLA400SE&SLA400S
UNIT: mm



Model: SLA600SE
UNIT: mm



ACCESSORIES

Aviation boxes and other installation of transport accessories, other documentation.

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Part Number ACM-1705 Rev.A