PRO 9A

USER **MANUAL**

WIRELESS MICROPHONE ANTENNA DISTRIBUTION SYSTEM

- WIRELESS MICROPHONE ANTENNA DISTRIBUTION SYSTEM -

Table of contents

Thank you for purchasing our products. To better utilize the performance of this product, we recommend that you read this manual carefully before use to understand the correct operating methods and obtain the best use results. Please keep this manual properly for reference when needed.

1. Brief description

The antenna distribution system allows up to five receivers to use the same antenna group. It is also equipped with a power connector to distribute power to each receiver. The antenna distributor compensates for insertion loss by splitting the antenna input into multiple outputs. The cascade connector can be connected to a fifth receiver or a second antenna distributor.

2. System Function

The antenna distribution system ensures maximum sensitivity and signal processing capabilities, providing the widest range of radio frequencies for many wireless receivers.

The antenna distribution system is designed for large wireless systems. Each unit allows four wireless receivers to use the same two antennas, and the cascade port can be connected to a fifth receiver or a second antenna distributor.

Compatible with all wireless microphone receivers operating within the compatible frequency range.

Cascade Port Two 50 ohm BNC type antenna cascade ports can connect an additional antenna distributor unit or a fifth wireless receiver. Large wireless systems can work with a pair of antennas.

The power output and output connectors can be chained on the power output and powered from a single power supply through the power output connector.

Low noise and intermodulation distortion, able to maintain a clear signal with minimal distortion.

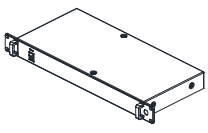
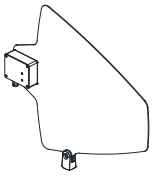
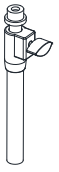
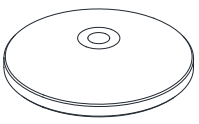
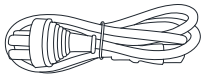
Insertion loss compensation When splitting the signal to multiple output ports, the signal strength will be attenuated. The antenna splitter can amplify and compensate the signal to ensure a strong signal for the receiver.

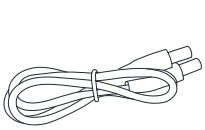
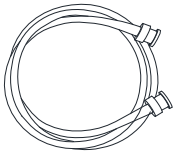
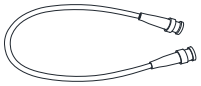
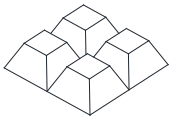
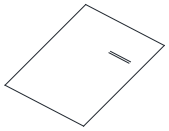
The antenna splitter comes with a front-mounted antenna function. The hardware required to install the antenna on the front side needs to be purchased from a local retailer.

3. System components

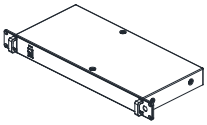
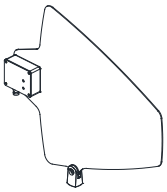
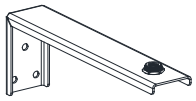
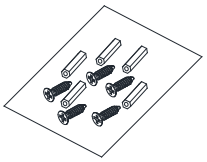
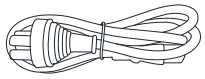
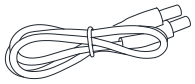
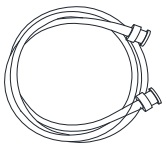
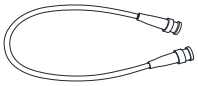
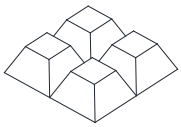
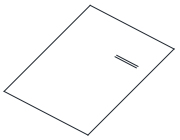
This product is equipped with removable and fixed antenna wings, which correspond to different components depending on the product model you purchased.

3.1 Removable antenna splitter accessories:

				
Host	Antenna wing	Support rod	Round socket	Power cord
1PC	2PCS	2PCS	2PCS	1PC

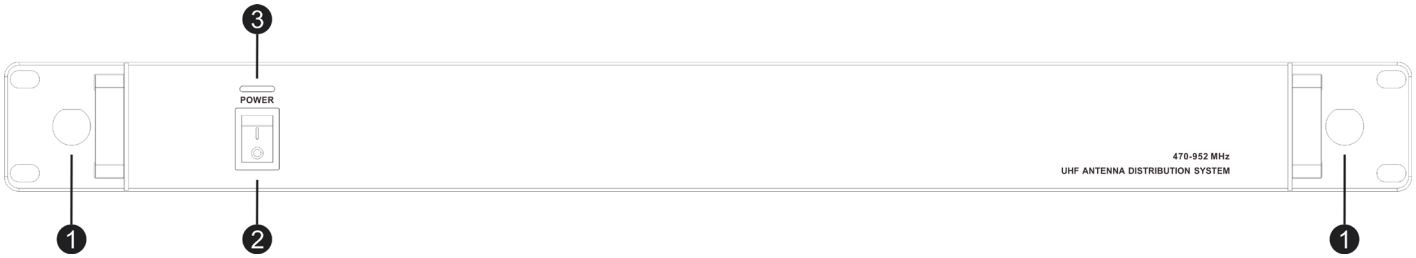
				
DC power cord	Coaxial cable	Coaxial cable	Foot pad	Instruction manual.
4PCS	2PCS	10PCS	1PC	1PC

3.2 Fixed antenna distributor accessories:

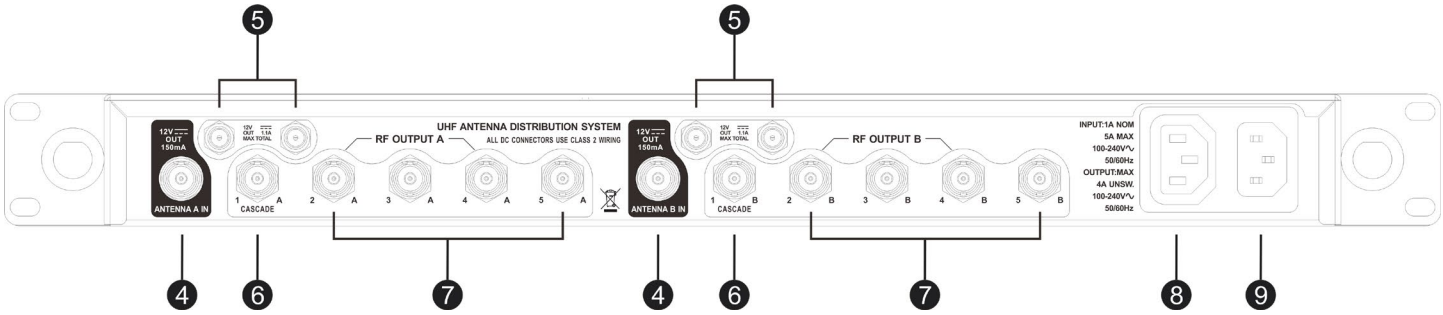
				
Host	Antenna wing	Support rod	Round socket	Power cord
1PC	2PCS	2PCS	1PC	1PC
				
DC power cable	Coaxial cable	Coaxial cable	Foot pad	Instruction manual
4PCS	2PCS	10PCS	1PC	1PC

IV. Host function name and introduction

2.1 Host function name and interface



Panel



Backend interface

2.1.1 ①: Front mounting antenna mounting position.

2.1.2 ②: Power switch.

2.1.3 ③: Power indicator light, LED to show power on/off s

2.1.4 ④: Antenna input port, channels A and B.

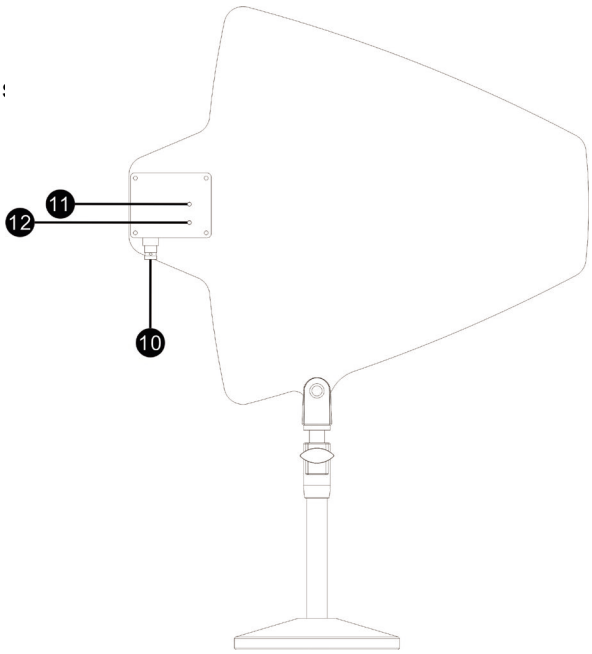
2.1.5 ⑤: 12V DC connector, to power the receiver.

2.1.6 ⑥: RF cascade connector, channels A and B.

2.1.7 ⑦: RF output connector, channels A and B.

2.1.8 ⑧: AC power output interface.

2.1.9 ⑨: AC power input interface.



2.2 Antenna wing function names and interfaces

2.2.1: Antenna wing output interface.

2.2.2: 10dB gain indicator.

2.2.3: 3dB gain indicator。

V. System Installation

5.1 Rack Installation Instructions

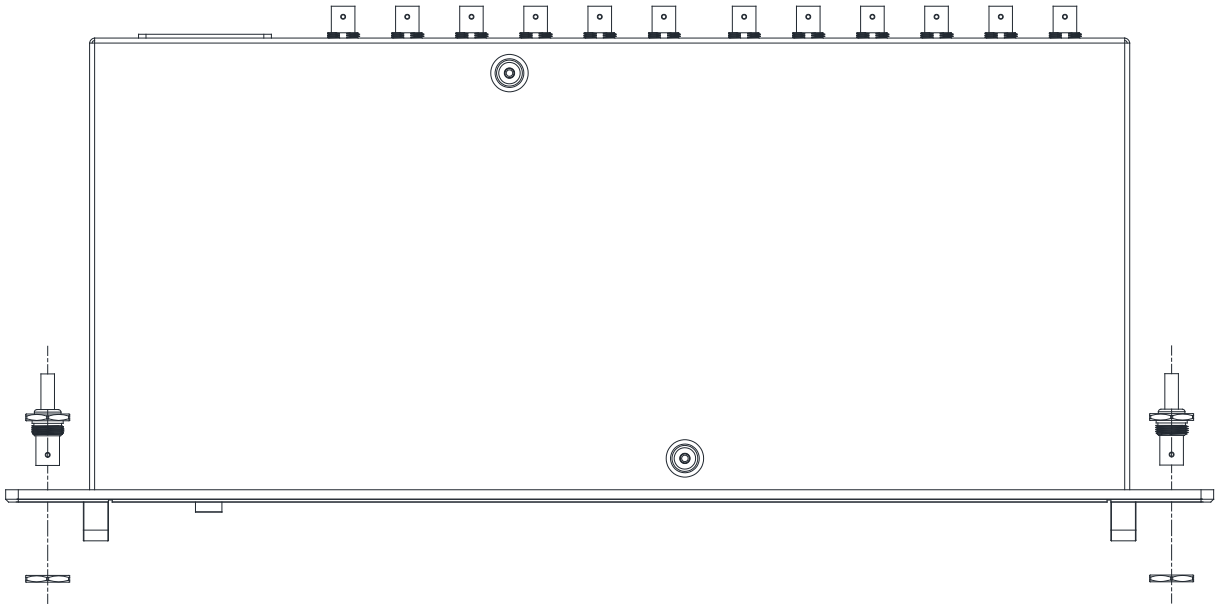
If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be higher than the room ambient temperature. Maintain the rack ambient temperature and do not allow it to exceed the maximum ambient temperature of -18°C~63°C specified by the manufacturer of the installed equipment.

Ensure that the ventilation in the rack can ensure the safe operation of the equipment. Do not install equipment in a rack with uneven mechanical loading to avoid hazardous conditions.

When connecting equipment to the supply circuit, consider the effect that circuit overloading may have on overcurrent protection and power wiring. Consider all equipment ratings when addressing this issue.

Maintain reliable grounding of rack-mounted equipment. Pay special attention to indirect power connections to branch circuits (such as power strips).

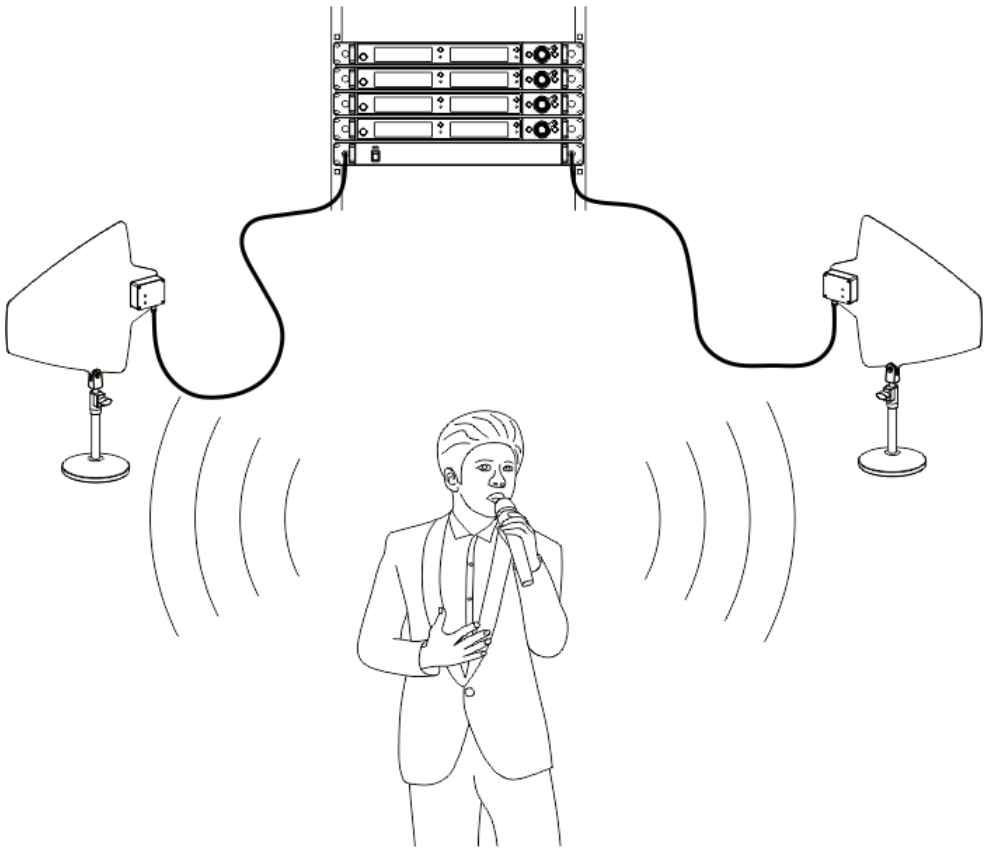
5.2 Install the front antenna



The antenna splitter is equipped with front-mount antennas. Front mounting moves the antennas to the front of the rack, which improves system performance. Antennas should be front or remote mounted when the equipment is in a rack.
Pass the bulkhead connector through the hole on each bracket and secure it to each side using the included hardware.

Connect the included antenna extension cable to the receiver antenna input and connector.
Mount the antenna on the bulkhead connector so that it extends out from the front panel.
Note: For best results, the antennas should be tilted 45° apart and outward. This ensures the best reception and greatly reduces the possibility of signal degradation. Always test the system before using the wireless system.

5.3 Installing Remote Antennas



Remotely mounted antennas have the advantage of being closer to the transmitter than equipment. The antenna can be placed anywhere within the recommended extension cable length, establishing a wider radio reception range and further reducing the possibility of signal loss.

Follow these guidelines to remotely mount the antenna:

When using an extension cable, use low-loss cables that are compatible with the operating frequency.

Place the antenna more than 3 meters (10 feet) away from the transmitter.

5.4 Antenna Splitter and Receiver Connection Instructions

5.4.1 Single Antenna Splitter Connection

1. Use a low-loss 50 Ω coaxial cable (length = 400mm) to connect the RF output port (RF OUTPUT) of the antenna splitter to the corresponding antenna input port (ANT) of each receiver. The cascade port (CASCADE) can be used to connect a fifth receiver, but the fifth receiver must be powered by itself.

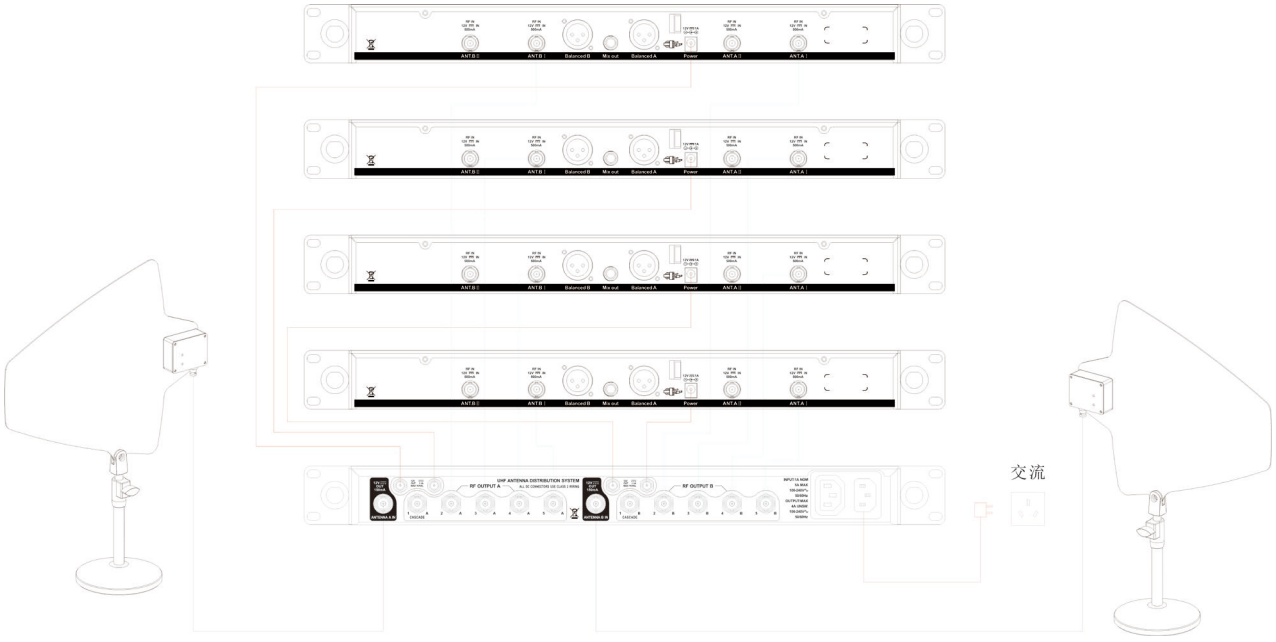
2. Connect the receiver (POWER) port to the antenna splitter power output port through the power adapter cable.

Note: One antenna splitter can power up to four receivers.

3. Use two low-loss 50 Ω coaxial cables (length = 1m) to connect the antenna wing port to the ANTENA A IN and ANTENA B IN ports of the antenna distributor.

4. Use the included power cord to plug into the AC power input interface of the antenna amplifier and connect to the power outlet.

This completes the connection of our single antenna distributor. (As shown in the figure below)



5.4.2 Connection of multiple antenna distributors

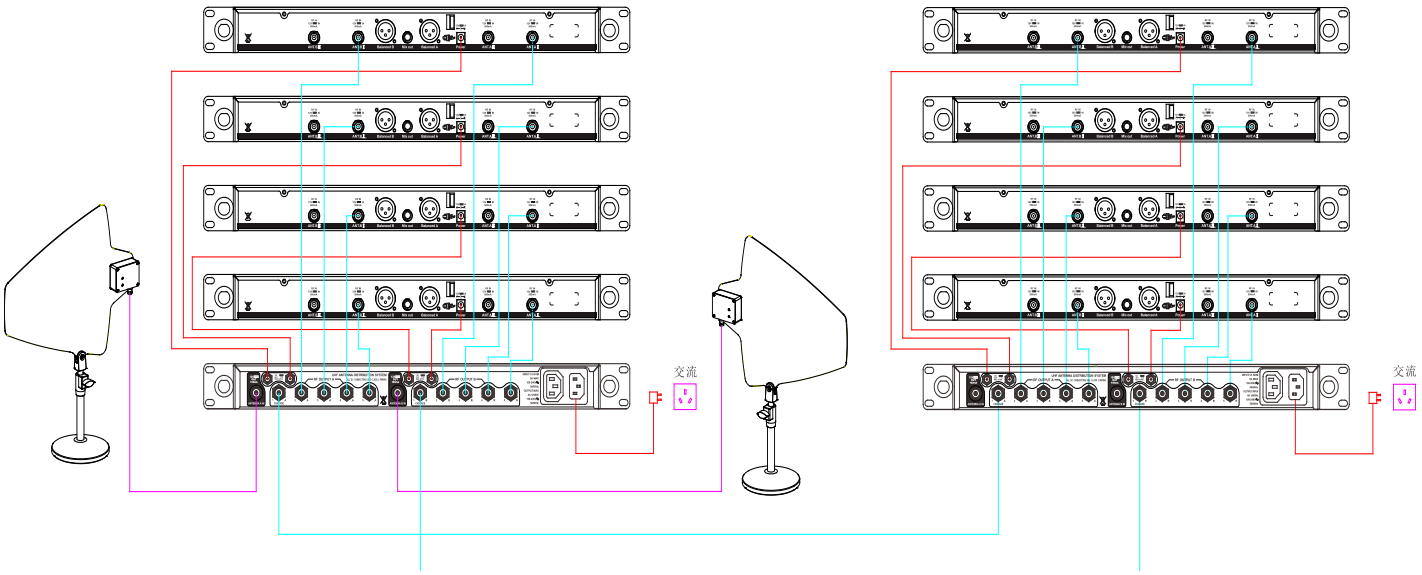
1. Connect the cascade ports (CASCADE) of the RF output channels of the two antenna distributors through a low-loss 50 Ω coaxial cable.

2. Use a low-loss 50 Ω coaxial cable (length = 400mm) to connect the RF output port (RF OUTPUT) of the antenna distributor to the corresponding antenna input port (ANT) of each receiver.

3. Use the included power cord to plug into the AC power input interface of the antenna amplifier and connect it to a power outlet.

4. Connect the receiver (POWER) port to the power output of the antenna distributor through a power adapter cable.

In this way, the connection of multiple antenna distributors is completed. (As shown in the figure below)



RF Power Overload

When the Overload Antenna LED indicator shows red, it means that the antenna amplifier is receiving a strong RF signal that is overloading it. To correct the overload condition, increase the distance between the antenna and the transmitter, or reduce the antenna gain setting.

Warning: Overloading the antenna amplifier will cause the number of channels to decrease and damage the system performance.

VI. Accessory Requirements

Be sure to select antennas and accessories that are compatible with the operating frequency range of your wireless system. If you need help in selecting the correct wireless accessories, please contact your local retailer.

Selecting Antenna Cables

Use 50 ohm low-loss coaxial cable.

VII. Functional parameters

Carrier frequency range 470 to 952 MHz

Distributed output level (gain) 0 dB, typical

Receiver antenna input, output ports 1 to 4: -2 dB to +2 dB

Receiver antenna input, cascade output -1 dB to +1 dB

Isolated output connector >25 dB, typical

Third-order overload intercept point (OIP3) 24 dBm, typical

Input-output AC line voltage, switching 100 to 240 VAC, 50/60 Hz

DC output 12 V DC, 4 connectors

Output current: Total value of all DC outputs: 2.5 A, maximum

Impedance: 50 Ω

Operating temperature range: -18°C (0°F) to 63°C (145°F)

Dimensions: 44.5 x 482.6 x 295.3 mm Height x Width x Depth (1.75 x 19 x 11.6 inches)

Net Weight: 3.32 kg (7.3 lbs)

Connector Type: BNC

VIII. Maintenance

1. This unit can only use the power supply voltage indicated on the indicator label. Please confirm whether the mains power in your area is suitable for the use of this unit.

2. If not in use for a long time, the receiver power plug should be unplugged and the battery inside the conference transmitter should be removed to avoid battery leakage, damage or shortening of product life.

3. Do not throw away batteries when discarded. Please put them in the designated recycling bin.

4. Do not mix old and new batteries, and only replace them with batteries of the same or equivalent type.

5. Please use accessories provided by the manufacturer or its approved accessory products.

6. Do not throw, drop, throw or drop the transmitter when using it to avoid serious damage.

7. Do not use or store this unit in highly humid, strong magnetic, strong light, high temperature and other environments.

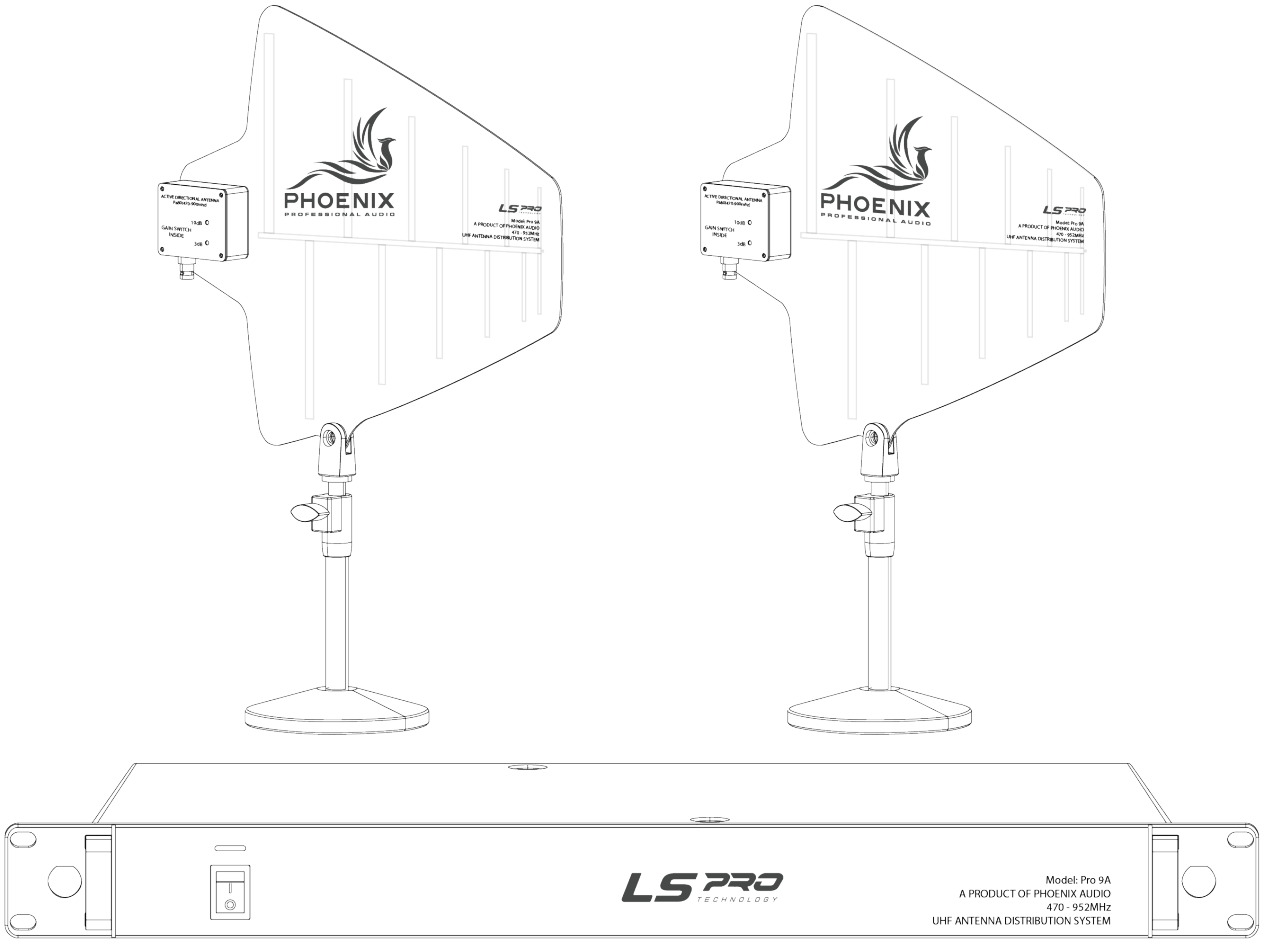
8. Please do not repair the machine by yourself. Opening or removing the casing may expose you to dangerous voltage and expand the scope of the fault. The dealer should designate professional maintenance personnel or hand it over to our company for repair.

9. Before cleaning the machine, be sure to disconnect the power supply first. The machine can be wiped clean with a soft cloth. If you want to wipe off stubborn stains, you can wipe it with a dry cloth dipped in an appropriate amount of detergent or alcohol, and then wipe it dry with a dry cloth. Do not use corrosive items to clean the machine, otherwise it will damage the surface coating of the product, so as not to reduce the service life of the product.

Note:

The contents of this manual are subject to modification without prior notice.

The final right of interpretation of the appearance, specifications, models, etc. of the above products belongs to our company. If there is any change, no further notice will be given. The product shall prevail!



- THANKS FOR READING -