# OWNER'S MANUAL

## AUTOMATIC INDUCTION
## WIRELESS MICROPHONE

**AUTOMATIC INDUCTION**
**WIRELESS MICROPHONE SYSTEM**

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# Important Safety Tips

- Please read this instruction manual carefully.
- Please keep the instruction manual in a safe place, and always hand over the device and the external power adapter together with the instruction manual to third-party users.
- Please pay attention to all warnings and follow all instructions in the in-service instructions .
- Clean the device and external power adapter only after disconnecting the power supply, please use a clean soft cloth to clean the device.
- All maintenance work must be carried out by professionally trained maintenance personnel.
- When the device or the external power adapter is damaged in any way, when liquids or foreign objects penetrate into the device or the external power adapter or the device is exposed to rain, when the device cannot work normally or is turned off, maintenance work must be performed.
- Warning: Please do not use the device and external power adapter in the area near water; do not use the device and external power adapter in the rain or wet environment, otherwise there is a risk of fire and electric shock; please do not place the container with liquid in the on the device.
- Please only use the supplied external power adapter.
- If the following conditions occur, the external power adapter should be unplugged from the outlet to disconnect the device from the power source.
  thunderstorm weather;
  Do not use the device for an extended period of time.
- You can only connect the external power adapter to the type of power source specified in the "Technical Data" section.
- Take care to ensure that the external power adapter is in good condition and kept in an easy-to-find place.
  Plug firmly into the socket.
  Use only within the permitted temperature range.
  Not covered by other objects or exposed to sunlight for a long time to prevent excessive temperature.
- Do not cover the ventilation openings, and place the device and power connector in accordance with these instructions for use.
- Do not place the device and external power adapter near heat sources such as radiators, ovens, or other appliances (including amplifiers).
- Please use the additional equipment/accessory parts recommended by our company.
- Please only use spare parts recommended by our company or with the same characteristics as the original parts. Unauthorized spare parts may cause fire, electric shock or other risks.
- Make sure that the external power adapter does not overload the connected socket or extension cable, otherwise there is a risk of fire or electric shock.
- If a mains plug and appliance coupler are used as the disconnecting device, the disconnecting device shall remain easily operable.

# Product features

## Standard use

The normative use of the receiver includes.

- Read these instructions for use carefully.
- Use this device only in accordance with the operating conditions described in these instructions for use.

If you do not use this equipment in accordance with this instruction manual or do not comply with the working conditions given in this instruction, it will be regarded as illegal use.

## Product features

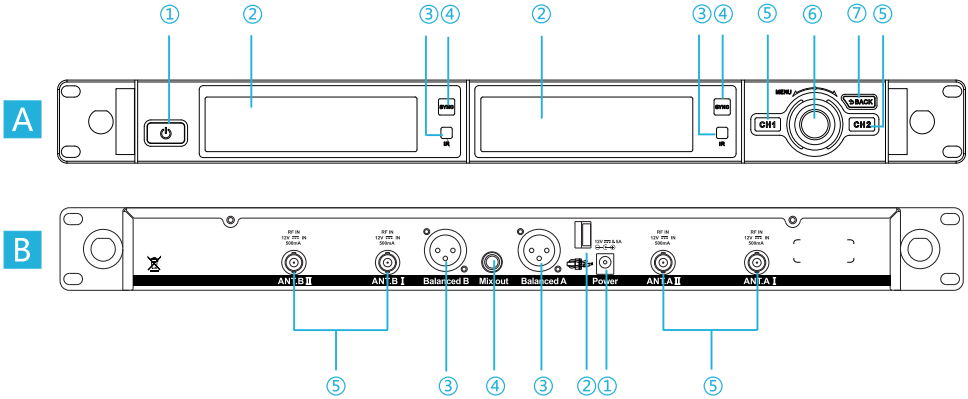
This product adopts advanced and modern high-frequency transmission technology, which is not only safe and reliable, but also easy and comfortable to use. Both the transmitter and eceiver can achieve high-quality wireless audio transmission.

- Optimized PLL synthesizer and microprocessor technology.
- Adopt advanced noise suppression method.
- Controlling audio transmission for secure squelch.
- Adopt pure automatic selection (true diversity) receiving method, not only the receiving distance is long, but also can eliminate the receiving sound interruption.
- Transmission channel search function available.
- Transmitter has 57MHz RF bandwidth.

## Packing list

Receiver 1 pcs
Transmitter 2 pcs
External power adapter 1pcs
BNC antenna 4 pcs
Crossing line 1pcs
User's manual
battery 4pcs

## Receiver overview




### A Front Operation Unit

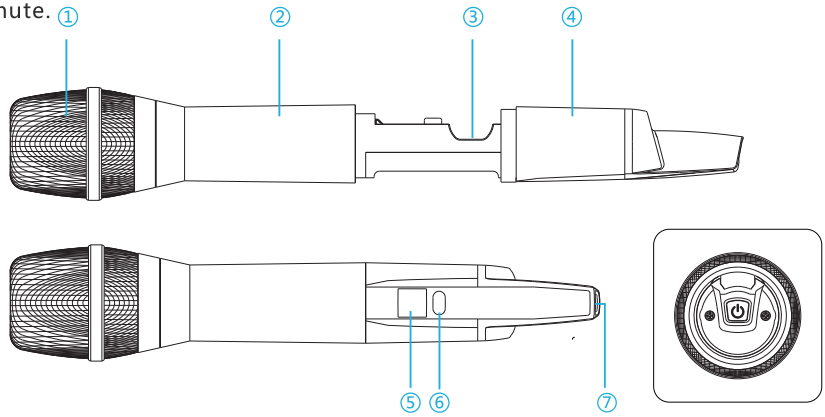
1.power switch key
2.LCD(CH1/CH2)
3.pairing window(CH1/CH2)
4.pair key(CH1/CH2)
5.Channel selection key(CH1/CH2)
6.menu、select/confirm key
7.return key

### B Back Operating Element Unit

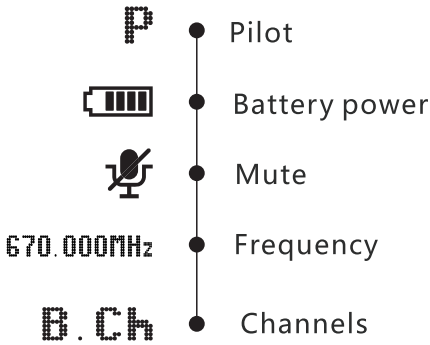
1.power input interface
2.wire anti-trip
3.balanced output interface（A/B）
4.mixing output interface
5.antenna socket

## Handheld Microphone Transmitter

- Press and hold the power button to power on, and long press the power button again to power off;
- When powered on, tap the power button to mute, and tap the power button again to unmute.

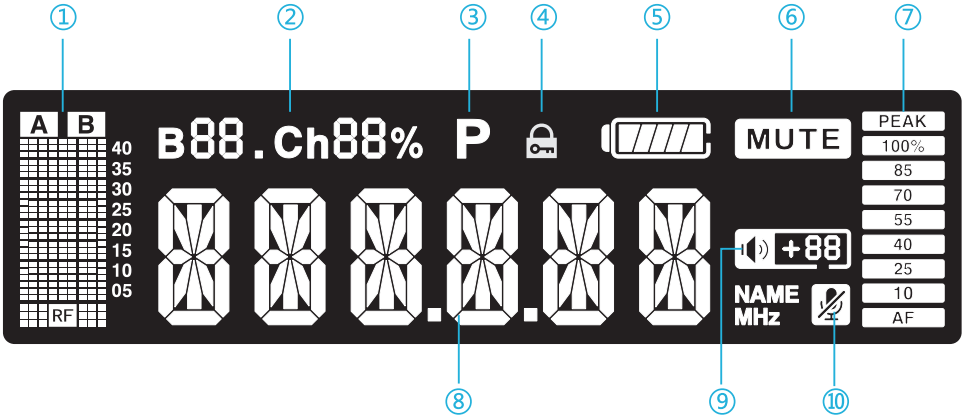



1.Cartridge
2.Handheld microphone up tube
3.Battery bay
4.Handheld microphone down tube
5.OLED display
6.IR pairing window
7.Power switch



## Display overview

After the receiver is turned on, the standard display information "receiver parameters" is displayed, and the standard display indicates the running status of the receiver.




| Display | meaning |
|---|---|
| ① radio signal level "RF" | AB antenna<br>Squelch gate<br>Displays the received signal strength |
| ② Channel adjustment | " B" group "Ch" Channel detail |
| ③ Pilot enable | |
| ④ Lock/Unlock | |
| ⑤ Transmitter battery display | |
| ⑥ receiver mute | |
| ⑦ Audio level value "PEAK" is overload | |
| ⑧ Frequency | |
| ⑨ master volume | |
| ⑩ transmitter mute | |

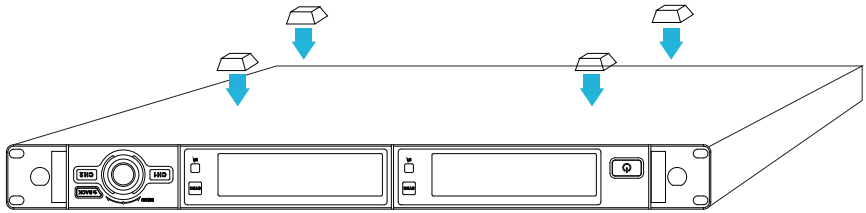
# Preparation before using the receiver

Receiver Application Preparation

## Place the receiver on a flat bottom

Please install the receiver on a flat bottom surface. Note that the feet of the device may stain some sensitive mounting surfaces.

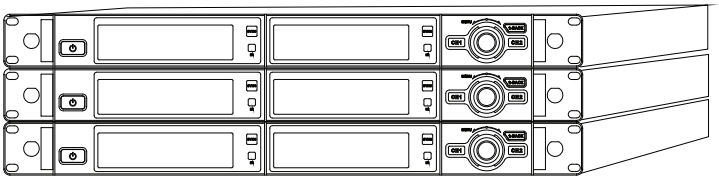
Paste the device feet ► Equipment foot paste - receiver bottom surface (see the picture below):



If you are stacking receivers, assembling the device feet to the lowest receiver.
If you are mounting the receiver on a 19" stand, do not attach the device feet.

- If you are stacking receivers, attach the device feet to the lowest receiver.
- Glue the device feet.

Stacked Receivers ► Please stack multiple receivers on top of each other.



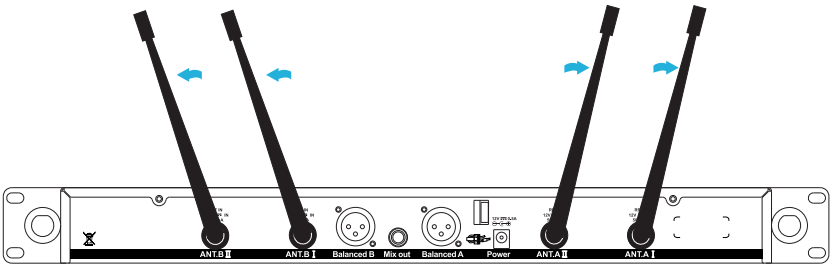
Notice! Stacked receivers can easily tip over and could fall over and cause injury!

- Please stack the receiver on a stable and sturdy surface.
- Take precautions to prevent stacked receivers from tipping over.
- Install the stacking bracket assembly as described in the previous section.

## Connect the antennas

The supplied omnidirectional antenna is suitable for wireless transmission under good reception conditions.

- Connect the antennas (see the picture below)
- Correct the antenna into a V shape




If you are using more than one receiver, we recommend that you use separate antennas if possible use original antenna.

## Mount the receiver to a 19" bracket.

If you are mounting the receiver on a 19" stand, do not install the device feet.

**Notice!** Dangerous when mounting with brackets!
When mounting the device to an enclosed 19" rack or to a combination rack with multiple devices, the ambient temperature, mechanical load and potential etc. will ary from when the devices are mounted individually.

- Please make sure that the ambient temperature inside the bracket does not exceed the maximum temperature given in the technical data sheet.
- Make sure the equipment is well ventilated (add additional ventilation if necessary).
- Take care to keep the mechanical load evenly distributed when installing the device into the rack.
- Please pay attention to the parameters on the nameplate when connecting the power supply, and avoid overloading the current loop. An overcurrent protection device can be installed if necessary.
- When the device is installed in the bracket, the leakage current of each power adaptermay be superimposed on each other, thus exceeding the allowable current limit. As a precaution you can ground the stand.

## Install the receiver

To mount the receiver into the bracket:

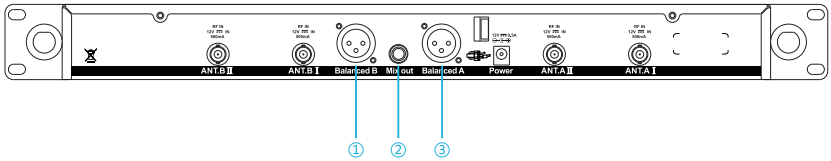
- Push the receiver into the 19" bracket.
- To install the antenna, install the supplied rod antenna to the back of the receiver.

# Receiver use

## Connect an amplifier or mixer

XLR jack ①③ and 6.3mm jack ② are connected in parallel

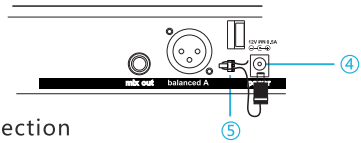
- Please use a suitable cable to connect the amplifier or mixer to the XLR jack ①③ or 6.3mm jack ②.
- Match the audio output level AF OUT to the input level of the amplifier or mixer in the receiver operation menu. The audio for both outputs can be set together using the menu bar.




## Connecting an external power adapter

Please only use the supplied external power adapter. It is specially equipped with your receiver for safe operation.

- Insert the plug of the external power adapter into the jack ④ of the receiver.
- Pass the cable of the external power adapter through the anti-pull device⑤.
- Plug the external power adapter into an outlet.




## Receiver use

Please follow the steps below to establish a radio connection

1. Turn on the receiver
2. Turn on the transmitter

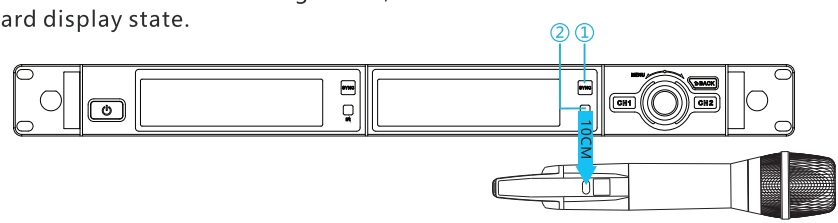
The radio connection is complete, the receiver displays the radio signal level "RF"

If you cannot establish a connection between the transmitter and receiver:

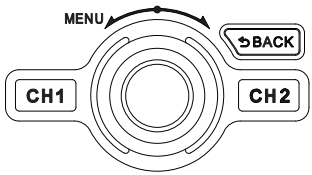
- Please check if the transmitter and receiver are set to the same channel bank and channel
- See chapter "FAQ"

Way to transfer parameters

- Turn on the transmitter and receiver
- Press the button SYNC① on the receiver, the receiver screen will display "IR progress bar".
- Place the infrared window of the transmitter (refer to the instruction manual of the transmitter) in front of the infrared window ② of the receiver.
- Parameters are sent to the transmitter. When the parameters are transferred successfully, the receiver screen turns "white". When the parameter transmission fails, the receiver screen will not change color, and then the receiver returns to the current standard display state.



## Overview operating menu




"Ch1" or "CH2" → turn the "MENU" key → select, press the "MENU" key to confirm/save. Press the "BACK" key to return.

| | |
|---|---|
| CHAN | Select factory preset frequencies or user-defined receiving frequencies from the channel library |
| SCAN | Detects the electromagnetic interference of the use environment and automatically selects a pure frequency |
| PILOT | Digital pilot function on by default |
| LOCKAT | After setting the device, the key will be automatically locked after about 10 seconds |
| AF OUT | Adjust the audio output level Adjustment range: -30dB—+12dB |
| NAME | Give the device a name to easily distinguish between paired transmitters and receivers |
| SQELCH | The receiving sensitivity value can be set as required to improve the anti-interference ability |
| BACK | Exit menu setting |

## • Custom channel adjustment

- Press CH1 (CH2) to select the left (right) channel, turn the MENU knob to CHAN, the channel group ①"B U.Ch01" flashes, press the MENU button, then "U" flashes,press the MENU button again, the integer part of the frequency point flashes, turn the MENU knob to adjust the integer part of the ②frequency point to the desired frequency point,Then press the MENU key to select the integer part, at this time automatically jump to the decimal part ③and flash, turn the MENU knob, adjust the fractional part of the frequency point to the desired fractional part of the frequency point, then press the MENU key, select the fractional part and press the MENU key,STORED appears, wait until the screen jumps to the "B U.Ch01" flashing interface, press the BACK button,that is, the channel adjustment is completed.

## • Module channel adjustment

- Press CH1 (CH2) to select the left (right) channel, turn the MENU knob to CHAN, press the MENU key,At this time, the channel group indicator "U" flashes, turn the MENU knob to the desired channel group, press the MENU button, and the channel indicator "Ch01" flashes,turn the MENU knob to adjust the channel to the desired channel, press the MENU button, and STORED appears to complete the module channel adjustment. Press the BACK button twice to exit.

## • Pilot enable

- Press CH1 (CH2) to select the left (right) channel, turn the MENU knob to PILOT, press the MENU key,Rotate the MENU knob again until "ON" flashes, press the MENU button, the pilot is turned on when STORED appears, press BACK twice to exit; repeat the above steps and select "OFF" to turn off the pilot.

## • Automatic key lock

- Press CH1 (CH2) to select the left (right) channel, turn the MENU knob to LOCKAT, press the MENU key,rotate the MENU knob again until "ON" flashes, press the MENU button, and the lock appears when STORED appears.then press BACK twice to exit, if there is no operation within 5-10 seconds, the screen will appear 🔒 , after that, the operation will not be possible, the screen will appear "LOCKED", to operate, you need to press the MENU button, then turn the MENU knob to "UNLOCK", and press the MENU button again to operate;Press CH1 (CH2) to select the left (right) channel, turn the MENU knob to LOCKAT, press the MENU key,rotate the MENU knob again until "OFF" flashes, press the MENU button, and the unlocking is completed when STORED appears. then press BACK twice to exit, the screen does not display 🔒, it can be operated freely, and the whole machine can be unlockedby operating on either side of CH1 and CH2.

## •Master volume adjustment

- Press CH1 (CH2) to select the left (right) channel, turn the MENU knob to AF OUT, press the MENU button,rotate the MENU knob again to the desired volume, press the MENU button,the volume adjustment is completed when STORED appears, and then press BACK twice to exit.

## •Custom name

- Press CH1 (CH2) to select the left (right) channel, turn the MENU knob to NAME, press the MENU button, the first character will flash,turn the MENU knob to the desired character, press the MENU key to confirm, at this time it will automatically jump to the next character,rotate the MENU knob again to adjust to the desired character, until the last character, the adjustment is completed when STORED appears, and then press BACK twice to exit.

## •Squelch Gate Adjustment

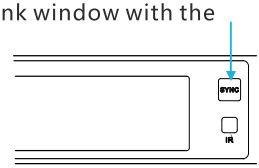
- Press CH1(CH2) to select the left (right) channel, turn the MENU knob to SQELCH,press the MENU key,Rotate the MENU knob again, turn it to one of the "LOW" “ MID" and “ HI" gears , press the MENU button, the SQ adjustment will be completed when STORED appearsand then press BACK twice to exit.LOW: Poor anti-interference ability, can stack up to 4 sets, and the ideal distance can reach 150m.MID: Strong anti-interference ability, can stack up to 8 sets, and the ideal distance can reach 100m.HI: The strongest anti-interference ability, can stack up to 16 sets, and the ideal distance can reach 80m.

## •Automatic frequency search

- Press CH1 (CH2) to select the left (right) channel, turn the MENU knob to SCAN, press the MENU button to automatically search for pure frequency points, after searching, it will automatically jump to the pure frequency point, the screen will flash and then automatically selected.

## •Pair frequency

- Press the link key SYNC, and align the transmitter's infrared link window with the host's infrared link window IR to automatically link the frequency.




Note: STORED appears after the adjustment of steps 11~12 is completed, the adjustment is saved successfully.After completing any one of the operations, just press the BACK button, turn the MENU knob to other.corresponding functions to operate.

# FAQ

| Question | Possible reason | Method of exclusion |
|---|---|---|
| Cannot operate the receiver, the screen displays "Please unlock" | Key lock is activated | Release the key lock (see page 11) |
| No signal received | Transmitter and receiver use different frequencies | Tune the transmitter and receiver to the same channel: Pls pair sync |
| | Beyond the signal range of the radio line | Check receive sensitivity settings.Shorten the distance between the receiving antenna and the transmitter |
| RF present, but no AF | Transmitter is muted | unmute |
| | Receive sensitivity setting too low | Reinstall or replace the positioning antenna |
| Audio signal distortion | The output level of the receiver is too high | Decrease the level ("Volume Settings") |
| Displays only appear Diversity I or II | One of the antennas is not connected properly | Check the antenna connection cable or antenna |
| | no optimal positioning | Improve antenna placement |

When your equipment has problems that do not exist in this table or the fault cannot be eliminated according to the solutions listed in the table, please contact us.

# Technical parameter

Receiver

| | |
|---|---|
| chassis specification | EIA standard 1U |
| Channels | 4 channels |
| Frequency stability | ±0.005%, PLL phase-locked loop frequency control |
| Carrier frequency | UHF 641-698MHz |
| Factory preset channels | 2281 preset channels |
| Working distance | Generally 100 meters (open space) |
| Oscillation | PLL phase-locked loop frequency control |
| Sensitivity | When the offset is equal to 25KHz and input 6dBμV, S/N>60dB |
| Bandwidth | 57MHz |
| maximum offset | ±45KHz |
| Comprehensive S/N ratio | >105dB |
| Comprehensive T.H.D | <0.7%@1KHz |
| Comprehensive frequency response | 45Hz~18KHz±3dB |
| powered supply | 100-240VAC 50/60Hz |
| Weight | 2.25KG |
| Size | 285mm (L) X 185mm(W) X 45mm(H) |
| Output socket | XLR balanced &6.3 unbalanced sockets |

## Handheld Microphone Transmitter

| | |
|---|---|
| Carrier frequency | UHF 641-698MHz |
| Oscillation | PLL Phase Locked Frequency Synthesis |
| Harmonic radiation | ＜-65dBm |
| Bandwidth | 57MHz |
| Maximum offset | ±45KHz |
| Cartridge | dynanic, cardioid Directivity |
| RF power output | 3mW |
| Battery | AA X 2 |
| Current consumption | 150mA |
| Battery drain/life | about 7hs |
| Size | 51mm（φ）X 270mm（L） |
| Weight | 350g |

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### WIRELESS MICROPHONE SYSTEM