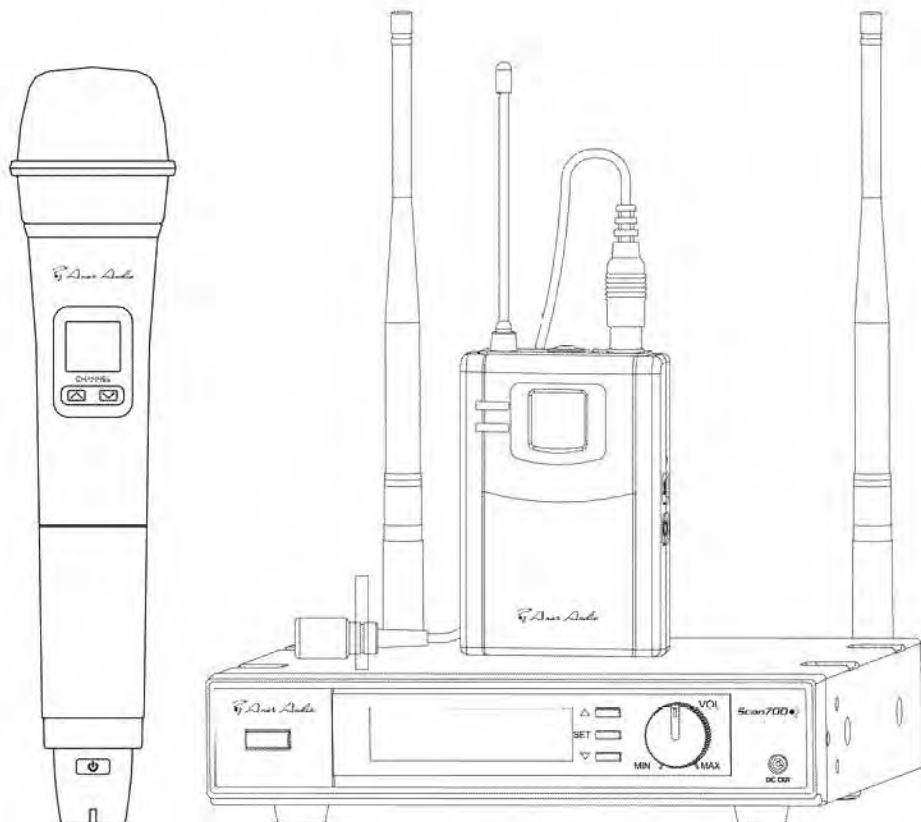


# Scan700

FREQUENCY AGILE WIRELESS MICROPHONE SYSTEM



# Scan700 Professional Wireless by Ansr Audio

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## **FCC Statement**

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) This device must accept any interference received, including interference that may cause undesired operation

Notice : The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**IMPORTANT NOTE:** To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

## **1. Introduction**

Thank you for purchasing our product. This wireless microphone system operates in UHF band frequency with synthesizer controlled. The system with 700 selectable frequencies via Phase Locked Loop (PLL) circuitry makes it easy to choose non-interfered channels. (The number of frequency channels depends on local regulations.) Please read this instruction manual carefully before operating the system. This manual covers the function and operation of the wireless microphone system.

## **2. Safety**

- Do not spill liquids on the equipment and do not drop it on a hard concrete floor.
- Do not place equipment near heat sources such as radiators, amplifiers, or etc. Do not expose it to direct sunlight, dust, excessive moisture, or vibration.
- To avoid potential damage from a leaking battery, remove batteries if the transmitters will not be used for a long period of time.

## **3. Environment**

- Do not throw used batteries into a fire or garbage bin with domestic rubbish. Be sure to dispose of used batteries in accordance with local waste disposal rules.
- When disposing the equipment, remove the batteries, separate the case, circuit boards, and cables, and dispose of all components in accordance with local waste disposal rules.

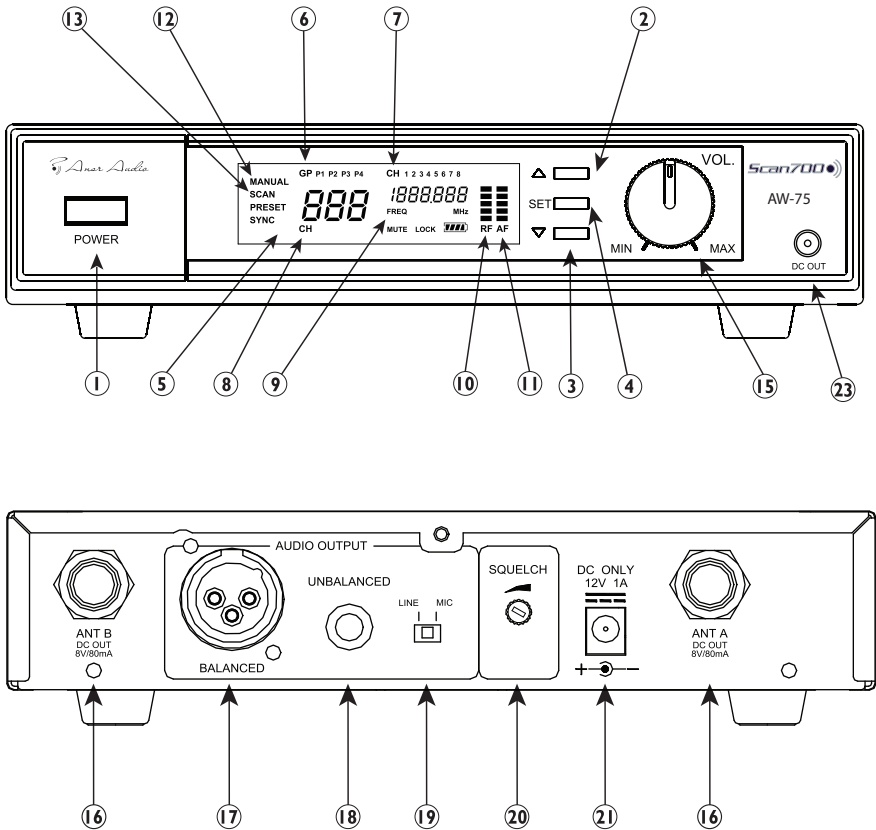
## **4. Wireless Note**

- Before setting up, make sure that the transmitter and receiver are tuned to the same frequency. Do not use two or more transmitters operating on the same frequency.
- Use good quality batteries to avoid the damage resulting from a defective leaking battery.
- Turn the volume control on the receiver to adjust receiver output level to match input level requirements of an audio mixer or amplifier.
- Use the gain control to adjust the sensitivity of the transmitter's audio to the level of the connected microphone.
- To avoid interference, do not put the receiver too near metal object and avoid obstructions between transmitter and receiver.
- While checking sound, move the transmitter around the area where you use the system to look for dead spots. If you find any dead spot, change the receiver position. If it does not work, avoid such places.
- Avoid the interference from TV, radio, other wireless appliances and etc.

## 5. Product Description

### 5.1 Receiver

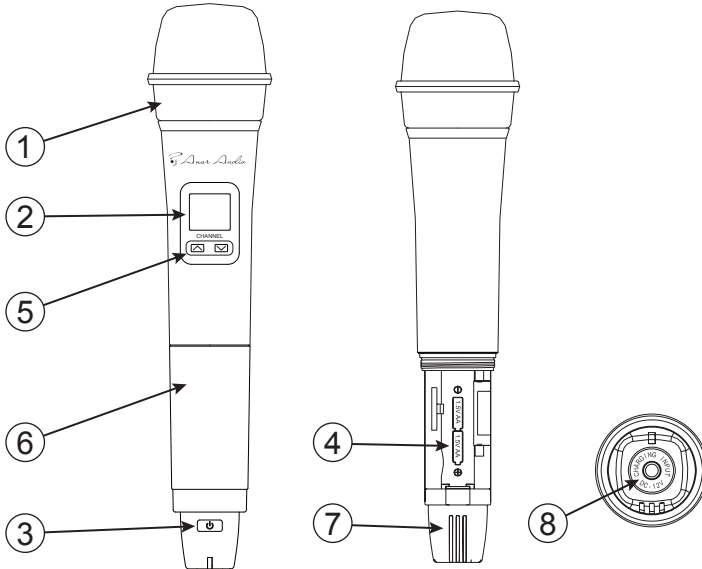
The receivers are used with our 700 selectable channel transmitters. (The number of frequency channels depends on local regulations.) The receiver operates in UHF band frequency with PLL synthesized control. Powered by 12V DC.



1. **Power:** Press for 4 seconds to power the receiver on or off.
2. **Button  $\triangle$ :** Used to search channel forward.
3. **Button  $\nabla$ :** Used to search channel backward.
4. **Set Button:** Press for 2 seconds, until "MUTE" is displayed, release the button, LCD display flashing, press button  $\triangle$  or  $\nabla$  to change the channel. Stop pressing button and let LCD display flashing five times and then lock the setting.
5. **LCD Display:** Showing the channel number, frequency level, RF & AF signal strength, and set-up mode.
6. **GP:** Indicating the preset group number, ex. P1 or P2...
7. **CH:** Indicating the preset channel number, ex C1 or C2...
8. **CH:** Indicating the channel number, ex 001 or 128...
9. **FREQ:** Indicating the frequency.
10. **RF Level Indicator:** 5- segment meter glows to indicate RF signal strength. For this, more is better. If no signal is indicated, your receiver will mute.
11. **AF Level Indicator:** 5- segment meter glows to indicate RF signal strength. Will move with your voice level. Try to keep louder passages from staying in the red.
12. **MANUAL:** Use this mode to select an interference-free channel manually.
13. **SCAN:** Scans upward to find the next interference-free channel.
14. **PRESET:** Use this mode to select an interference-free channel from preset-groups. There are 4 preset groups. In each group there are 8 preset channels which are suitable for 8 transmitters using simultaneously.
15. **Volume Control:** Use rotary control to adjust the receiver output level to match with the input sensitivity of an audio mixer or an amplifier.
16. **Antenna Input Connector:** TNC-type connectors provide connection to the supplied antennas or to coaxial cable used with an antenna divider, antenna boosters or remote antennas.
17. **Balanced Output:** 3-pin XLR connector provides balanced low-impedance output
18. **Unbalanced Output:** Unbalanced 6.3mm (1/4 inch) mono jack audio output
19. **Mic/Line Switch:** Use this to adjust output (XLR balanced connector and 1/4 inch unbalanced phone jack) for microphone (-20dB) or line-level (0dB).
20. **Squelch:** Effectively limits the operating area of the system to help eliminate outside interference. The higher the squelch control, the smaller the service area of the system. If you need to adjust this, set the squelch to minimum (larger area), raise until signal is affected, and then back off to make sure that the required operating area is covered, but not alot more.
21. **DC IN:** DC Input connector for the supplied AC adapter.
22. **DC OUT:** Use this to connect the supplied cable from the receiver to the microphone or transmitter for charging.

#### 4. AW-71 Handheld Microphone

The handheld microphone operates in UHF band frequency with PLL synthesized control. UHF 700 preprogrammed selectable frequencies to avoid interference. (The number of frequency channels depends on local regulations.) Uni-directional electret condenser element is clear and precise. Rechargeable AA batteries are included, but good quality alkalines may also be used, just in case someone forgets to recharge the transmitter.



1. **Grille:** Protects the microphone capsule and helps reduce breath sounds and wind noise.

2. **LCD Display:** Displays channel number and battery power level

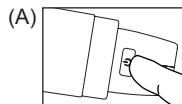
3. **Power:** Press for 4 seconds to power the transmitter on or off.

4. **Battery Compartment:** Insert two AA dry or rechargeable batteries into the compartment and make sure that the polarity of batteries is correct.

5. **Channel up or down Button:**

➤ Press power button for 1 second to set LCD display flashing. (A)

➤ Press channel  $\Delta$  or  $\nabla$  button to change channel up or down. (B)



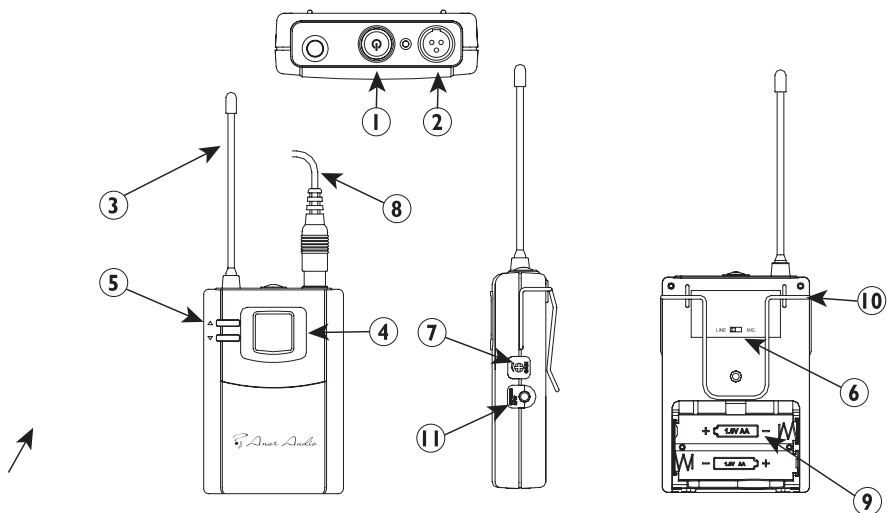
6. **Battery Cover:** Unscrew to expose battery compartment and channel selector.

7. **Antenna:** Permanently connected, helical antenna.

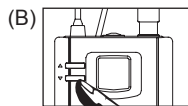
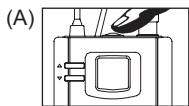
8. **Charging Input:** If inserted battery is rechargeable, it can be charged by using the supplied DC-plug cable connection to DC out on the front of the receiver.

### 5.3 Bodypack Transmitter

The bodypack transmitter operates in UHF band frequency with PLL synthesized control. UHF 700 preprogrammed selectable frequencies to avoid interference. Various uni-directional electret condenser cartridge options. Use 1.5V x 2 AA size dry or rechargeable batteries for low operating cost.



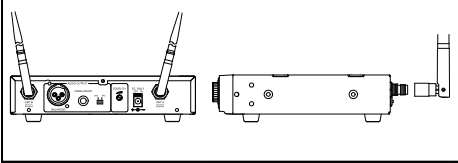
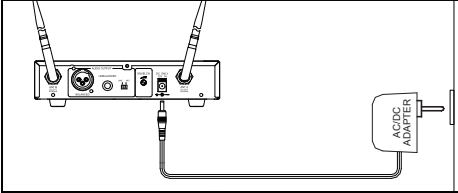
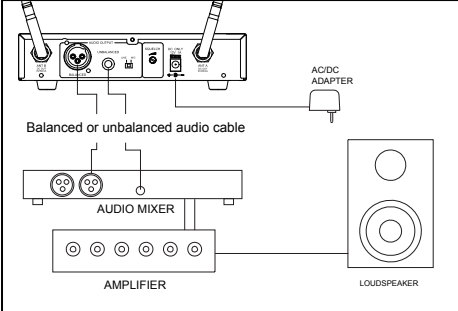
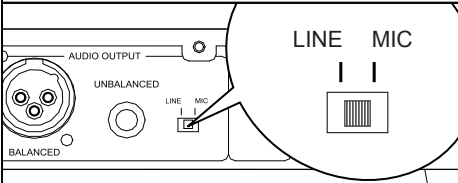
1. **Power:** Press for 4 seconds to power the transmitter on or off.
2. **Mini XLR Connector:** The included electret laval microphone is inserted into the connector on transmitter.
3. **Antenna:** Permanently connected, helical antenna.
4. **LCD Display:** Displays channel number and battery power level
5. **Channel ?or ? Button:**
  - Press power button for 1 second to let LCD display flashing. (A)
  - Press channel  $\Delta$  or  $\nabla$  button to change channel forward or backward. (B)
6. **Mic/Line Selector:** The switch sets the audio input either to microphone level or line level.
7. **Gain:** The rotary control adjusts the input audio level of the transmitter. The gain adjustment range is 10dB.
8. **Mic Unit/cable:** Microphone connection
9. **Battery Compartment:** Insert two AA dry or rechargeable batteries into the compartment and make sure that the polarity of batteries is correct.
10. **Belt Clip:** Secures the bodypack, may be worn with the antenna either up or down. Be sure the bodypack is secured before use.
11. **Charging Input:** The inserted rechargeable batteries are charged by using the supplied DC-plug cable connection to DC out on the receiver. Charge time depends on depth of discharge.



## 6. Set Up

### 6.1 Connecting the Receiver

**NOTICE:** Prior to setting up, please check that the transmitter and receiver are tuned to the same frequency. Two or more transmitters operating in the same frequency can not be used at the same time and area. So for each extra transmitter, please select a different frequency which can be used simultaneously.

	<ul style="list-style-type: none"> <li>• Plug the antennas into the TNC socket on the receiver and point them upward.</li> </ul>
	<ul style="list-style-type: none"> <li>• Plug the DC 12V 500mA power supply into the power connector on the back of the receiver.</li> </ul>
	<ul style="list-style-type: none"> <li>• Connect the receiver output to the audio mixer or amplifier input, using a standard audio cable with 3-pin XLR connectors or ¼ in. phone plugs. Never use the balanced and unbalanced audio outputs at the same time! This may cause signal loss or increased noise.</li> </ul>
	<ul style="list-style-type: none"> <li>• Matching the Mic / Line selector position of receiver with the audio Mixer before connecting with Mixer. For Mic (-20dB) For Line (0dB)</li> </ul>



➤ When using a standard audio cable with 3-pin XLR connectors or ¼ in. phone plugs to plug into the MIC IN on the audio mixer or on the amplifier, please turn the Volume Level Control of the receiver to around 1 o'clock position, the output level for balanced and unbalanced output is about at 77mV.



➤ When using a standard audio cable with 3-pin XLR connectors or ¼ in. phone plugs to plug into the LINE IN on the audio mixer or on the amplifier, please turn the Volume Level Control of the receiver to around MAX. position, the output level for balanced and unbalanced output is about at 770mV. Never use the balanced and unbalanced audio outputs at the same time! This may cause signal loss or increased noise.

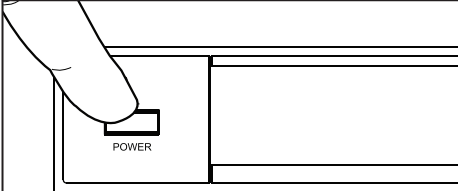
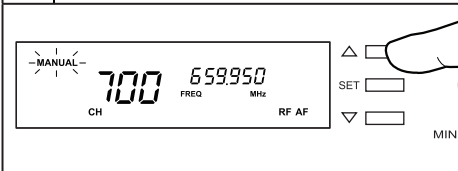
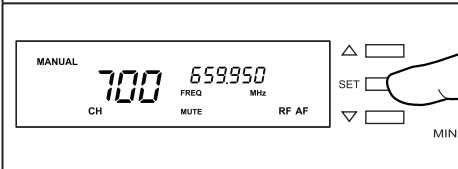
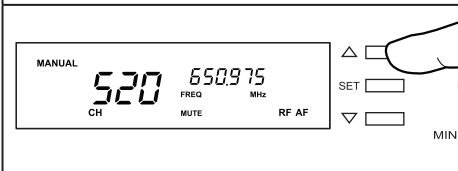

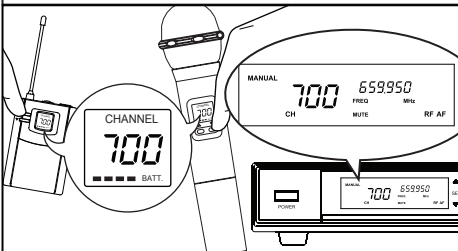


**6.3 Setting up channel on receiver**

Notice: Do not put two or more transmitters operating nearby when setting up the frequency channel. Please keep transmitter at least one meter away from receiver.

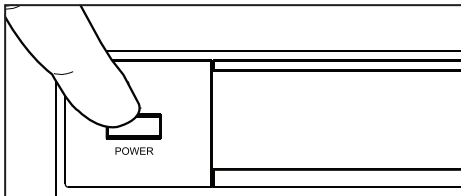
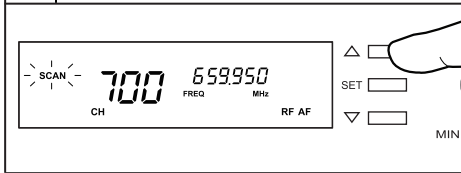
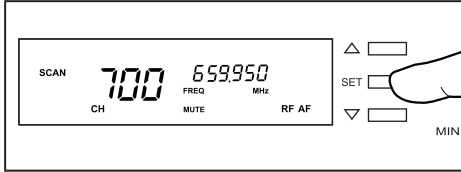
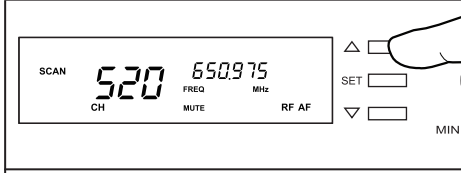
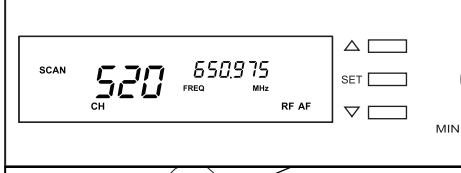
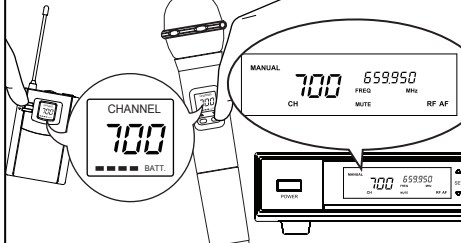
**6.3.1 Manual Mode**

Setting interference-free channel by manual operation.

	<ul style="list-style-type: none"> <li>• Press for 4 seconds to turn on the power.</li> </ul>
	<ul style="list-style-type: none"> <li>• Pressing the <math>\Delta</math> or <math>\nabla</math> to select the "MANUAL" mode.</li> </ul>
	<ul style="list-style-type: none"> <li>• Press the "SET" button for 2 seconds until "MUTE" is shown and the LCD display is flashing, then release the button.</li> </ul>
	<ul style="list-style-type: none"> <li>• Press <math>\Delta</math> or <math>\nabla</math> button to change the channel forward or backward.</li> </ul>
	<ul style="list-style-type: none"> <li>• Stop pressing <math>\Delta</math> or <math>\nabla</math> button and let LCD display flash five times to lock the setting.</li> </ul>
	<ul style="list-style-type: none"> <li>• Adjust the channel setting of the transmitter according to the receiver's channel setting.</li> <li>• Select the Channel Press power button for 1 second to set LCD display flashing. Press channel <math>\Delta</math> or <math>\nabla</math> button to change channel forward or backward.</li> </ul>

**4. Auto-Scan Mode**

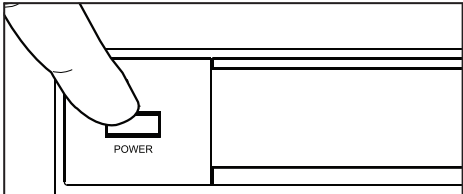
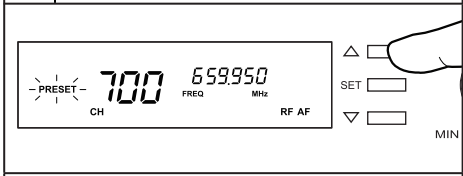
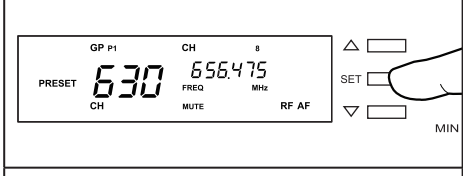
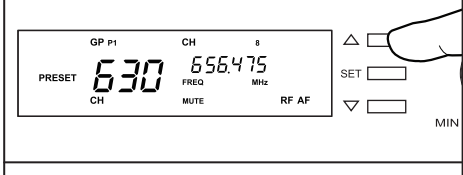
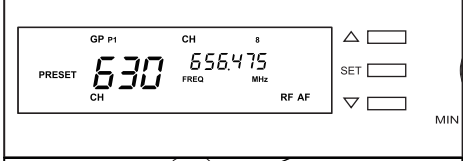
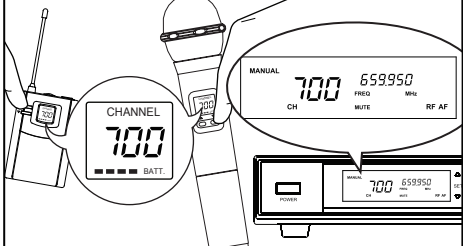
Set up interference-free channel by auto-scan programmed search.

	<ul style="list-style-type: none"> <li>• Press for 4 seconds to turn on the power.</li> </ul>
	<ul style="list-style-type: none"> <li>• Using the <math>\Delta</math> or <math>\nabla</math> button to select the "SCAN" mode.</li> </ul>
	<ul style="list-style-type: none"> <li>• Press the "SET" button for 2 seconds until "MUTE" shows and the LCD display is flashing, then release the button.</li> </ul>
	<ul style="list-style-type: none"> <li>• Press <math>\Delta</math> or <math>\nabla</math> button to scan forward or backward, and it will stop at the next free-interference channel automatically. .</li> </ul>
	<ul style="list-style-type: none"> <li>• Stop pressing button and let LCD display flashing five times to lock the setting.</li> </ul>
	<ul style="list-style-type: none"> <li>• Adjust the channel setting of the transmitter according to the receiver's channel setting.</li> <li>• Select the Channel Press power button for 1 second to let LCD display flashing. Press channel <math>\Delta</math> or <math>\nabla</math> button to change channel forward or backward.</li> </ul>

**NOTE:** If you need to set up a multi-receiver system, please keep your previous receiver-microphone pair power on. Then go on to next scanning procedure.

### 4. Preset Group Mode

Set up interference-free channel by auto-scan programmed search.

	<ul style="list-style-type: none"> <li>• Press for 4 seconds to turn on the power.</li> </ul>
	<ul style="list-style-type: none"> <li>• Use the <math>\Delta</math> or <math>\nabla</math> button to select the "PRESET" mode.</li> </ul>
	<ul style="list-style-type: none"> <li>• Press the "SET" button for 2 seconds until "MUTE" shows and the LCD display is flashing, then release the button.</li> </ul>
	<ul style="list-style-type: none"> <li>• Press <math>\Delta</math> channel button to change the programmable <b>group forward</b>.</li> <li>• Press <math>\nabla</math> channel button to change the programmable <b>8 channel forward</b>.</li> </ul>
	<ul style="list-style-type: none"> <li>• Release button and let LCD display flash five times to lock the setting.</li> </ul>
	<ul style="list-style-type: none"> <li>• Adjust the channel setting of the transmitter according to the receiver's channel setting.</li> <li>• Select the Channel Press power button for 1 second to let LCD display flashing. Press channel <math>\Delta</math> or <math>\nabla</math> button to change channel forward or backward.</li> </ul>

NOTE: If you need to set up a multi-receiver system, please keep your previous receiver-microphone pair power on. Then go on to next scanning procedure.

### 6.3 Set Up The Handheld Microphone / Bodypack Transmitter

	<ul style="list-style-type: none"> <li>• Open the battery cover and insert batteries into the battery compartment conforming to the polarity (+)(-) marks.</li> </ul>
	<ul style="list-style-type: none"> <li>• Unscrew the handheld Mic and press to open the battery cover to insert the battery into the battery compartment and confirm the marks of the polarity (+) (-).</li> </ul>
	<ul style="list-style-type: none"> <li>• Plug the mini XLR connector of the microphone cable into the audio input connector on the bodypack transmitter.</li> </ul>
	<ul style="list-style-type: none"> <li>• Press for 4 seconds to turn the Handheld/ Bodypack transmitter on.</li> </ul>
	<ul style="list-style-type: none"> <li>• Adjust the channel setting of the transmitter according to the receiver's channel setting.</li> <li>• Select the Channel Press power button for 1 second to set LCD display flashing. Press channel <math>\Delta</math> or <math>\nabla</math> button to change channel forward or backward.</li> </ul>

**6.4 Charging connection**

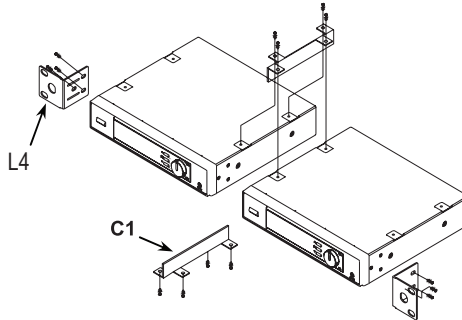
	<ul style="list-style-type: none"> <li>• When the LCD display shows the low battery power level and the battery inserted is rechargeable.</li> <li>• Using the supplied DC plug cable directly connect to DC out on the receiver and charging input on the transmitter.</li> </ul>
	<ul style="list-style-type: none"> <li>• Connect the supplied DC 1.5 cable to the receiver and the transmitter. When charging the transmitter the LCD display would flashing all the time until stop flashing it means charging completed. Charging time will vary depending on depth of discharge.</li> </ul>

• Note:  
 \*\*Turn the transmitter off when charging.\*\*  
 \*\*Never try to recharge dry (alkaline) batteries. \*\*

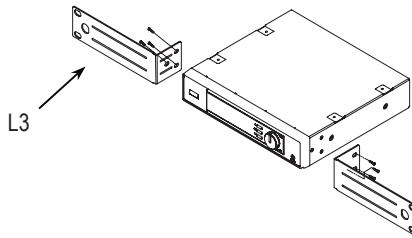
**6.5 Adjusting Gain**

	<ul style="list-style-type: none"> <li>• Unscrew the Handheld Microphone.</li> <li>• 0dB: Switch the Gain selector to the 0dB position when using the normal vocal input.</li> <li>• -10dB: Switch the Gain selector to the -10dB position for louder vocal situations.</li> </ul>
	<ul style="list-style-type: none"> <li>• Use this to adjust for input level.</li> <li>• Switching the selector to the Mic position when connecting to a microphone with normal audio input level.</li> <li>• Switching the selector to the Line position when connecting a high level instrument input.</li> </ul>

To combine two receivers in a 19" standard rack by using 2 short L type plastics racks (L2) and 2 metal connecting plates (C1). (Each system includes a L2 and a C1.)



To mount a receiver in a 19" standard rack by using 2 L type long metal racks (L3).

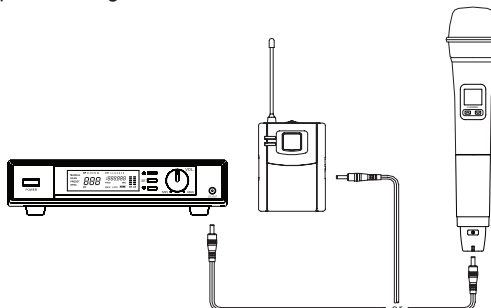


### Charging Connecting Diagram

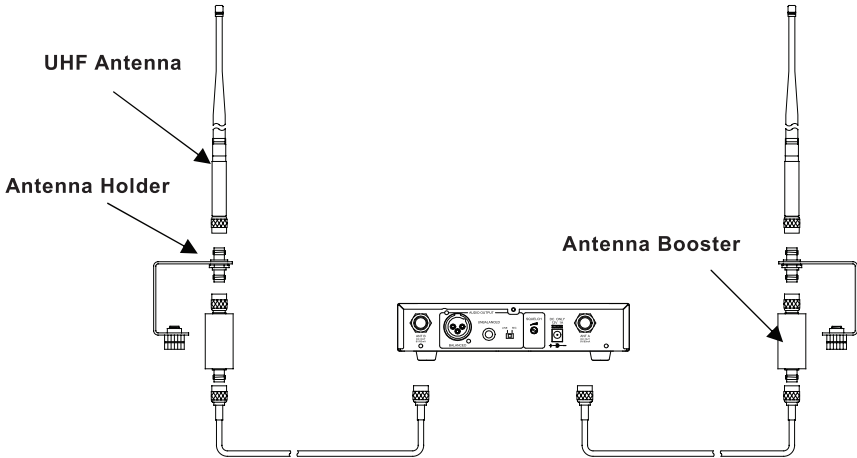
Connect the supplied DC1.5 cable to the receiver and the microphone. Charge time varies with depth of discharge. The battery level on the LCD display of transmitter is flashing until charging is completed.

\*\* Turn transmitter power off when charging.\*\*

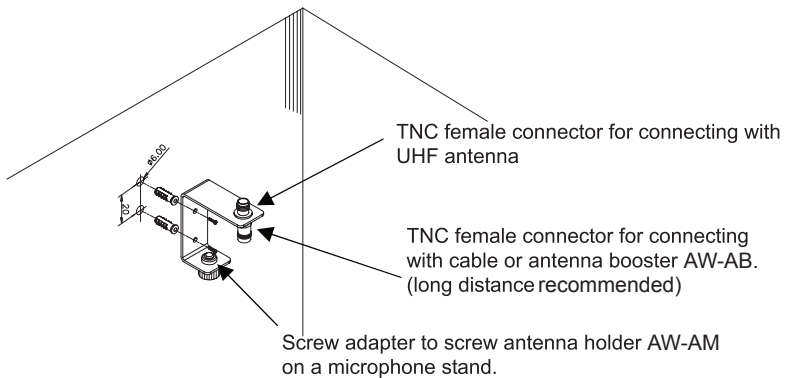
\*\* Do not attempt to recharge alkaline batteries. \*\*



The antenna booster is highly recommended for long-distance installs, such as a stadium or an auditorium. With antenna holders (part AW-AM), the booster (part AW-AB) can be secured easily as part of the mount. Consider the AW-AB in cable runs 15 feet or more. Good quality 50 ohm cable is recommended.



AW-AM antenna mount and AW-AB booster can be mounted to a wall or on a mic stand.



## 8. Troubleshooting

Problem	Solution
No sound	<ul style="list-style-type: none"> <li>➤ Check the power supply of the microphone and receiver. Turned on?</li> <li>➤ Check that the transmitter and receiver are tuned to the same frequency.</li> <li>➤ Check whether your mixer/amp is switched on and the receiver output is connected to audio mixer or amplifier input.</li> <li>➤ Check whether transmitter is too far away from receiver or SQUELCH control set too high.</li> <li>➤ Check whether receiver is located too near a metal object or there are obstructions between transmitter and receiver.</li> </ul>
Sound interference	<ul style="list-style-type: none"> <li>➤ Check the antenna location.</li> <li>➤ When using 2 or more microphones simultaneously, make sure that the chosen frequencies are not interfering with each other.</li> <li>➤ Check whether the interference comes from other wireless microphones, TV, radio and etc.</li> </ul>
Distortion	<ul style="list-style-type: none"> <li>➤ Check the receiver volume level is set too high or too low.</li> <li>➤ Check whether the interference comes from other wireless microphones, TV, radio and etc.</li> </ul>

## 9. System Features

- Unique, built in recharging system saves money and time by ending the previous stream of batteries into the trash. Plug it in when you're done, it's ready when you are.
- UHF wireless microphone system with 700 selectable frequencies via Phase Locked Loop (PLL) circuitry makes it easy to choose clean channels.
- Auto-Scan technology for the operating easiest and fastest channel set-up.
- Super high sensitivity, extremely low noise transmission and reception.
- SMT assembled PCB module ensures quality and stability.