

WIRELESS MICROPHONE SYSTEM

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FCC Statement

This device complies with part 15 of the FCC rules. Operations 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 16 or 64 selectable frequencies via Phase Locked Loop (PLL) circuitry makes it easy to choose non-interfered channels. Please read this instruction manual carefully before operating the system. This manual covers the configuration and operation of the wireless microphone system.

2. Safety

- Do not spill liquid on the appliance and do not drop it on a hard concrete floor.
- Do not place the appliance near heat sources such as radiators, amplifier, or etc. Do not expose it to direct sunlight, extremely dust, excessive moisture, or vibration.
- Take out the battery from transmitter, if the appliance has been not used for a longer period. This will avoid the damage resulting from a defective leaking battery

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

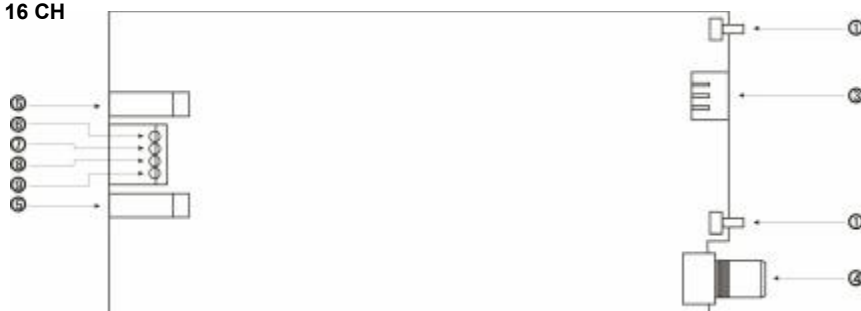
- Before setting up, make sure that the transmitter and receiver are tuned to the same frequency.
- Do not use two transmitters in the same frequency.
- Use good quality batteries to avoid the damage resulting from a defective leaking battery.
- To avoid interference, do not put the receiver too near metal object and avoid obstructions between transmitter and receiver.
- Avoid the interference from TV, radio, other wireless appliances and etc.

5. Product Description

5.1 Receiver Module

This is a diversity receiver module suitable for inserting into PA system or portable amplifier. It can use with our 16- or 64-channel selectable transmitters. The receiver module operates in UHF band frequency with PLL synthesized control.

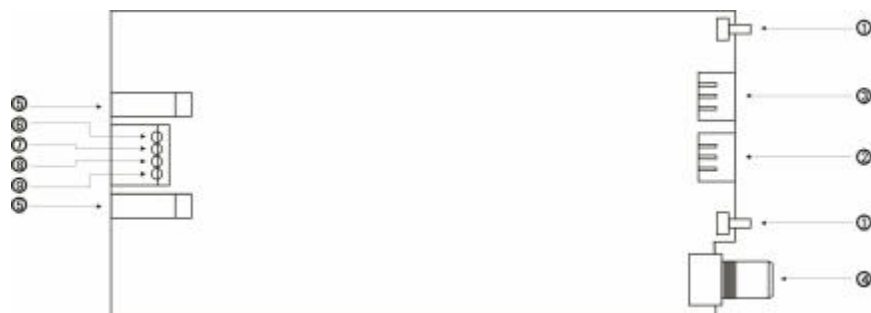
16 CH



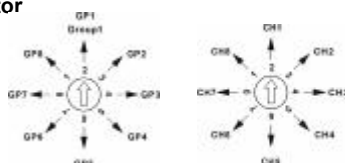
16 Channel Selector



64 CH



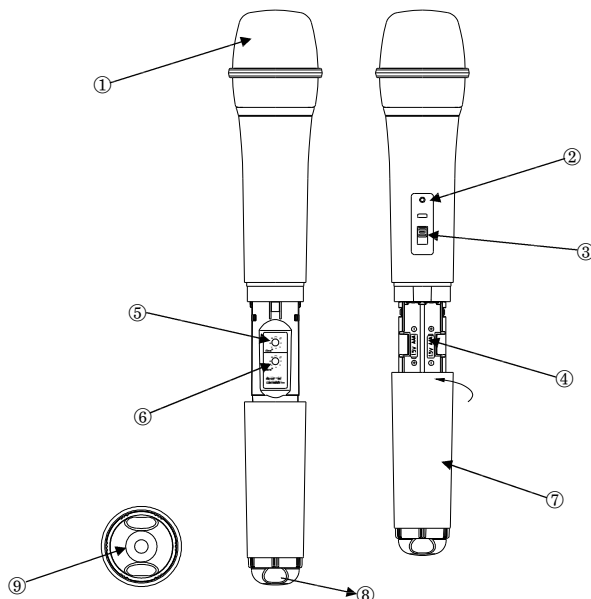
64 GP/CH Selector



1. **Diversity A. B Indicator:** This LED lights to indicate that RF signal is being received.
2. **Group Selector:** Rotates this selector to choose a group number.
3. **Channel Selector:** Rotates this selector to choose a channel number.
4. **Level Control:** This rotary control adjusts the receiver output level to match the input sensitivity of an audio mixer or amplifier
5. **RF Input:** Uses 50 Ohm coaxial cable to connect with UHF antenna.
6. **Ground:** Connection with Ground.
7. **AF Output:** Connection with AF Output.
8. **DC 12V:** Connection with power supply DC12V.
9. **Control:** Generating about DC 7V while AF operating.

5.2 Handheld Microphone

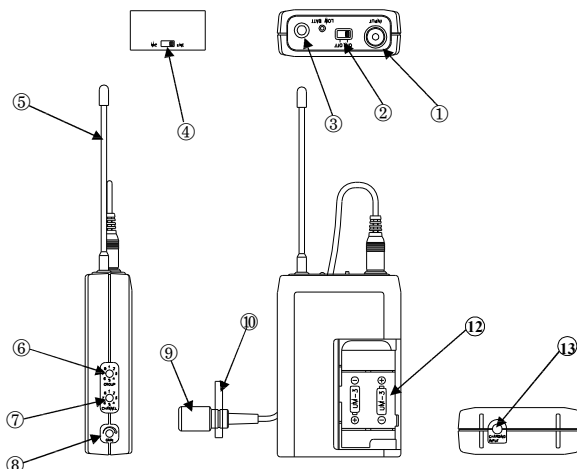
The handheld microphone operates in UHF band frequency with PLL synthesized control. UHF 64 preprogrammed selectable frequencies to avoid interference. Uni-directional dynamic or uni-directional condenser capsules with different characters for various choices. Use 1.5V x 2 AA size batteries for low operating cost.



1. **Grille:** Protects the microphone capsule and helps reduce breath sounds and wind noise. The grille for the various microphone capsules differ in appearance.
2. **Low Battery LED:** LED indicates battery life status. Switching the power to "ON", the LED flashing once indicates that the transmitter has sufficient power. If the LED stayed on, it indicates that the battery has insufficient power and should be changed soon. If the status LED fails to flash, the battery is either dead or not positioned correctly, and you should correct the positioning or change the battery.
3. **On/off Switch:** Turns transmitter power on and 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. **Group Selector:** Changes transmitter Group setting.
6. **Channel Selector:** Changes transmitter Channel setting.
7. **Battery Cover:** Unscrew to expose battery compartment and Group/Channel selector.
8. **Color Clip:** This color clip helps to mark the same frequency of receiver and transmitter.
9. **Charging Input:** for charging rechargeable batteries inside the battery compartment using the using a supplied cable with 1.5φ DC plugs. It needs up to 10 hours for charging.

5.3 Bodypack Transmitter

The bodypack transmitter operates in UHF band frequency with PLL synthesized control. UHF 64 preprogrammed selectable frequencies to avoid interference. Uni-directional condenser capsules with different characters for various choices. Use 1.5V x 2 AA size dry or rechargeable batteries for low operating cost.



1. **On/Off Switch:** Turns transmitter power on and off.
2. **Mini XLR /3.5mm connector:** The included electret lapel microphone is inserted into the connector on transmitter.
3. **Low Battery LED:** LED indicates battery life status. Switching the power to "ON", the LED flashing once indicates that the transmitter has sufficient power. If the LED stayed on, it indicates that the battery has insufficient power and should be changed soon. If the status LED fails to flash, the battery is either dead or not positioned correctly, and you should correct the positioning or change the battery.
4. **Mic/Line Selector (optional for use with mini XLR connector) :** The switch sets the audio input either to microphone level or line level.
5. **Antenna:** Permanently connected, helical antenna.
6. **Group Selector:** Changes transmitter Group setting.
7. **Channel Selector:** Changes transmitter Channel setting.
8. **Gain.:** The rotary control adjusts the sensitivity of the transmitter's audio to the level of the connected lapel microphone or instrument.
9. **Mic Unit:** The uni-directional electret condenser unit features the wide frequency response for warm, rich bass and clear sound.
10. **Tie Clip:** To clip on the tie or lapel for free-movement.
11. **Cable:** With mini XLR jack or 3.5mm screw type plug cable to connect the transmitter.
12. **Battery Compartment:** Insert two AA dry or rechargeable batteries into the compartment and make sure that the polarity of batteries is correct.
13. **Charging Input:** for charging rechargeable batteries inside the battery compartment using the using a supplied cable with 1.5V DC plugs.

6. System Feature

- Operating in UHF band frequency with synthesizer controlled.
- The wireless microphone system with 16 or 64 selectable frequencies via Phase Locked Loop (PLL) circuitry makes it easy to choose non-interfered channels.
- Super high sensitivity, extremely low noise transmission and reception.
- SMT assembled PCB module ensures the quality and stability.

7. System Specification

Receiver Module

- Carrier Frequency Range : UHF band 682.375~697.125MHz
- Frequency Stability : $\pm 0.005\%$
- S/N ratio : $> 94\text{dB}$, at 48KHz deviation and 60dB μ V antenna input
- Maximum Deviation : $\pm 48\text{KHz}$
- Image and Spurious Rejection : 80 dB minimum
- Receiving Sensitivity : 6 dB μ V.
- Selectivity : $> 50\text{dB}$
- AF Response : 50Hz to 15KHz ($\pm 3\text{dB}$)
- T.H.D. : $< 1\%$ (at 1KHz)
- Service Area : 80m (
- Current consumption : 145mA $\pm$ 10mA,
- Power Supply : 12V DC

Handheld/Bodypack Transmitter

- Carrier Frequency Range : UHF band 682.375~697.125MHz
- RF Power Output : 10mW (max.)
- Oscillation Mode : PLL synthesized
- Frequency Stability : $\pm 0.005\%$
- Maximum Deviation : $\pm 48\text{KHz}$
- Spurious Emission : $> 60\text{dB}$ below carrier frequency
- T.H.D. : $< 1\%$ (at 1KHz)
- Microphone Capsule : **Handheld:** uni-directional dynamic or uni-directional electret condenser unit
Lavalier: uni-directional electret condenser unit
- Operating voltage : DC1.5V x 2 AA size dry or rechargeable batteries
- Current consumption : 65mA $\pm$ 5mA
- Dimension (mm) : Handheld: 55 ϕ x 267mm
Bodypack: 64(W) x 97(H) x 24(D)

