

Owner's Manual

Includes handheld microphone

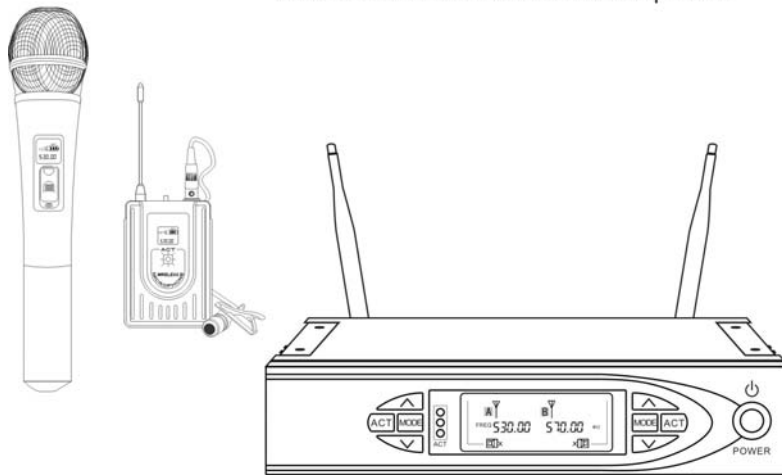
Radio Engineering Industries, Inc.

Product name: wireless microphone

Trade name: REI

Model: WM70

Infrared Frequency Switch
Automatic Scan Wireless Microphone



Please study manual instruction carefully before installation and use

Thanks for your trust and support to our productions. You will be pleasant to use our wireless microphone. For making good use of production, please read this manual first and keep it.

A: Gentle Reminder

↓IF signal shown interrupt and destroyed, please switch to other channels.

↓Turn down amplifiers if you want to reset receiver or change the working frequency, in case of damagement.

↓electronic volume design.

B: Cautions

- 1) Keep the receiver away from dead corner for good receiving
- 2) Do not throw break or flap the microphone for protection
- 3) Non-waterproof. Protected from water or other liquid
- 4) Keep away from electromagnetism high-voltage or large metal
- 5) Risk of electronic shock, do not open
- 6) Turn off the power when change battery, recycle the disuse battery
- 7) Take out the batteries if you will not use the machine for long time for protection
- 8) Cut off the power if you not use the machine for long time
- 9) Keep not less than 50cm distance around the machine for ventilation
- 10) Don't locate any remora on the intake for ventilation
- 11) Do not locate any flame or fire on the machine
- 12) Stop use if the machine been broken or entered anything abnormal,

call the local dealer or public service center

13) Do not open yourself or you'll lose guaranteed repair

14) Only for temperate or torrid zone

Maintenance

Remember to turn OFF all power before cleaning the receiver. Remember to use soft cloth with medium flush liquid and avoid volatile gasoline or other strong chemical liquid or washing detergent. It might damage to the receiver.

C: General Features

Traditional wireless microphone is being interrupted easily because of the low signal frequency designed and especially the harmonics wave from digital equipment such as CD/VCD/LD or even mobile phone! The receiver's squelch circuit, analyze the strength of the RF signal, but the RF can not distinguish the required signal and noise. In the noisy RF environment or the signal of the transmitter becomes low, the traditional squelch circuit may be turned on suddenly, making the receiver sends out strong noise. In order to solve the problem, we designed this series of UHF dual channel auto-scan diversity band professional wireless microphone and receiver. It uses our highest and strictest technical measure for improving frequency, advance high and medium frequency

filter. Moreover, we also create a digital anti-noise circuit.

D: Unique design

- π ACT circuit, search for the undisturbed channel automatically.

- π PLL circuitry, UHF 530-570 MHz, large frequency range to switch and avoid interference

- π Adopt filtering circuitry to avoid distorted signal

- π Within boost regulator design

- π Perfect power indicator for charging and capacity

- π Adopt noise eliminating circuitry

- π Expand effective range

- π Restrain any noise or scream

- π Multi-Level noise supervisory circuitry with anti-interference

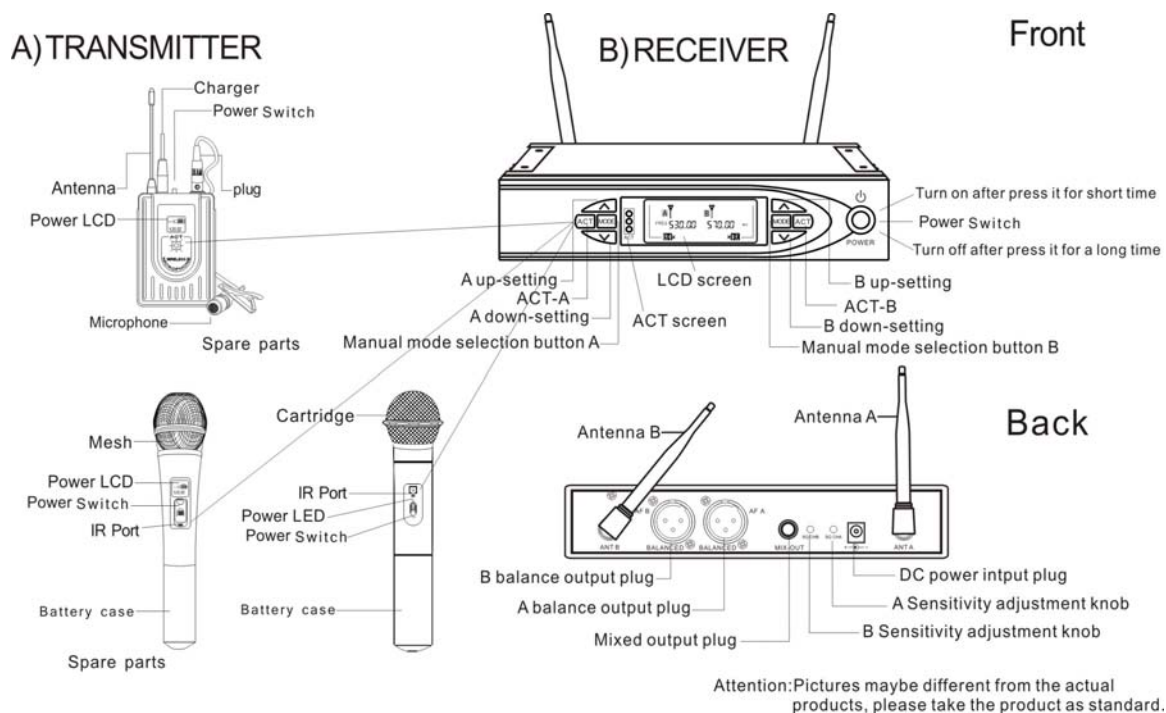
- π Frequency is designed according to the sound characteristics

- π Pronunciation code locked, useless signal locked, Double Mute Control and resolve disturb

- π 100 frequencies available. Recommended for Pub, Lounge, Family Karaoke, KTV, School, Conference and etc.

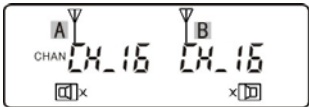
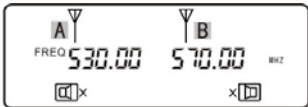
- π 100 meters in the best condition, 80 meters in normal condition (this receiver is with receiving distance adjustment for selection)

E: General Product Description

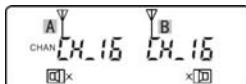
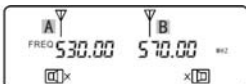


F: How to connect and operate the receiver

- 1) "POWER" key: press the "POWER" quickly for "power on"; press the "POWER" continually for 0.8 sec, to power off
- 2) MODE: alternate between manual and auto. It is auto mode when the SCAN displays, otherwise manual mode. Under manual

mode,   The frequency and channel can be set manual by UP-SETTING or DOWN-SETTING.

Specific operation: after selected a frequency, then turn on transmitter, and transmitter infrared port should aim at the receiver infrared port., then press UP or DOWN key, the system will research the non-disturb frequency automatically. Specific operation: change it into auto mode


and confirm that it display "scan"  ,

press UP or DOWN key for selecting microphone A or B, then turn on transmitter, and transmitter infrared port should aim at the receiver infrared port, then press UP or DOWN key one again, now the system will research the frequency upwards or downwards till the “SCAN” not flash, if “ACT” flash, the system will signaling automatically, the transmitter will receive the signal from receiver and lock it, at this moment, the system will stay at the best frequency. (Note: the distance between receiver and transmitter should be within 50cm)

- 3) “ACT” : Auto-channel-targeting. Press the key, “ACT” flashes, the system will research and communicate with transmitter by infrared. The transmitter will target the channel automatically and stop researching (Noise cancellation) until all the transmitter get simultaneous with receiver, then it will exit, if the communication is OK. The receiver will exit if it can not research any transmitter after 12 circulars. ACT can be stopped by any key. During the research, the transmitter infrared port should aim at the receiver infrared port, and the transmitter must be “ON”
- 4) “UP□” “DOWM□”: press the key, the channel will be adjusted upwards, or downwards, press the key for 0.5 Sec., the system will auto-adjusted upwards, or downwards circularly
- 5) The frequency will memorized automatically when you turn the receiver off

6) Adjustment for sensitivity: clockwise movement for min receive distance while counter-clockwise for max receive distance.

7) The volume adjust method: press “MODE” till the interface turns to

be up and down  key on the left means Volume up and down for microphone A, up and down key on the right means Volume up and down for microphone B.

Gentle Reminder: Keep the receiver more than 1 meter from the ground and away from the wall; install all antennas to achieve perfect performance.

G: UHF wireless microphone

- 1) Open battery cap, insert 2×AA1.5V rechargeable batteries inside battery compartment. Please make sure if the battery polarity is in correct position.
- 2) Turn microphone to ON position, if there is no display on LCD, please check the battery polarity or voltage.
- 3) Change the switch to MUTE, receiver will cut audio output and restrain noise.

H: Transmitter LCD

- 1) CH50: Channel 50. there are up to 100 frequencies available for each channel.



2) 530.15 : the present using frequency is 530.15 MHz

Battery power situation, to tally 4 status. Power full 60% power capacity; 40% power capacity; 10% power capacity, nearly power off, should change another battery.

I: Trouble Shooting

Malfunction	Reason & Disposal
No LED lights when you turn on the power	Check if the cable is plugged correctly and the power on, check also the fuse;
LED lighting but no voice output	Check if the volume is turned on to the minimum or the plug is inserted correctly;
Receiving range getting closing and signal getting instability	Check if the antenna has moved out, or the receiver is in a wrong position (on the ground or at the corner), or near a magnetic field;
Sound become different	Check if the battery has run out, or there's the same frequency round, or there's 2 sets of same products working at the same time an same

	place (please keep at least 100meters).
--	---

◀If malfunction occurs, please contact our dealer or our company as soon as possible, DO NOT open to fix by yourselves, we will serve for you with all sincerity.

J: Technical Specification

1) FUNCTIONS

Frequency Range: UHF 530-570 MHz

Frequency Stability: $\leq \pm 10 \text{ppm}$

Operating Range: $> 100 \text{dB}$

Distortion: $\leq 0.3\%$

Frequency Response: 40Hz-20kHz

Tone Output: Independence 1-150mV

Mixed 0-150 mV

2) RECEIVER

Power Supply: AC230V $\sim \pm 10\%$ / AC120V $\sim \pm 10\%$ (50Hz/60Hz)

(Please follow the stated marks on the receiver or adaptor)

Operating voltage: DC14 \approx 300mA

Use Up Power: 10w

S/N Ratio: $> 98 \text{dB}$

Feint Disturbing Ratio: $> 80 \text{dB}$

Channel Disturbing Ratio: $> 80 \text{dB}$

Sensitivity: $\leq 50\text{dBuV}$ ($S/N \geq 20\text{dB}$)

Extra Weight: 50us

3) TRANSMITTER

RF Power Output: 2.95 mW

Modulation: FM

Max Modulation: $\pm 25\text{kHz}$

Higher Harmonic: 40dB lower than the Datum wave

Battery: 3V ($2 \times \text{AA } 1.5\text{V}$)

Operating temperature: -10 to $45\text{ }^{\circ}\text{C}$

Remarks: Because the product is continuously improving, specification may change. Please forgive us not to inform you.

FCC warning 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.

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