

# Multi-channel wireless microphone system

User Instructions

# DBZ

## LXD/B8

Please read this instruction manual carefully before using the unit and  
keep the manual properly for future use.

To assure the best performance, please read this manual carefully and keep the manual in a safe place for future reference.

### **A.Product Introduction**

UHF multi-channel wireless system is an intelligent multi-functional wireless system, adopts UHF multi frequencies design, PLL technology, ultra-high frequency wireless transportation, with stable quality, long working distance, clear sound quality, wide and clear LCD display and fashionable outlook design.

This system is suitable for the professional stage, multi-function hall, conference rooms and teaching rooms.

#### **1、Advantages**

##### **UHF Frequency Transmission**

It adopts UHF ( Ultra High Frequency ) band transportation, with frequency range of 640-685MHz. Frequencies can be designed according to the regulations of the country in which they are actually used, so as to be suitable for various countries and regions.

##### **Micro-computer CPU Controlled**

The hardware circuit of the whole system is controlled by the CPU of the microcomputer. It can select frequency, display frequency and process frequency data etc. It can realize various functions that are not easy to realize in traditional models.

##### **Wide and Clear LCD Display**

With high performance, wide and clear LCD display, all operations can be displayed on the LCD screen to facilitate users to understand the working status of the system and set up the system. Display content includes: radio frequency signal strength, audio signal strength, channel and frequency, ACT working status, etc.

##### **High Precision PLL Technology**

Compared with the quartz-controlled system, the PLL technology with high precision phase-locked loop frequency synthesis has higher frequency stability and excellent frequency selection characteristics. It can realize multi-channel and multi-functional professional functions in the system.

##### **Channel Selection**

The system is with Channel Selection, and the user can set the working channel according to the actual needs by very simple and convenient operation.

**Audio Output**

The Audio output is equipped with XLR balanced output and 1/4 inch unbalanced output, which makes it easy for users to connect to different external devices.

**Automatic Channel Tracking (ACT)**

The system has high-tech automatic channel tracking (ACT) function. After the receiver has set up the receiving channel, the transmitter frequency can be locked automatically and accurately by infrared data transmission, so that the transmitting frequency can be synchronized with the receiver.

**Anti-interference Multi Channels Design**

The system uses a variety of anti-interference technology. It has 160 noninterference frequencies as the factory default setting. It is reasonable to design and convenient for users to use multi-system at the same time. It is an ideal product for speech and conference rooms.

**Battery status indicator/Lower power warning**

The battery power of handheld transmitter, bodypack transmitter and conference transmitter can be displayed on their LCD, and the warning is given when the battery power is low, promptly reminding users to change batteries to ensure the normal operation of the system.

**Modular Mic Capsule Design**

The Mic capsule of the handheld transmitter adopts modular design, which can facilitate users to configure different sound quality Mic capsules to adapt to different occasions.

**2. Technical Parameters****System**

Frequency ranges: 640MHz~685MHz

Modulation Mode: Broadband FM

Available Band Width: 500MHz

Channel number: 90(or 180)

Channel spacing: 250KHz

Frequency stability:  $\pm 0.005\%$

Dynamic range: 100dB

Peak deviation:  $\pm 45\text{KHz}$

Audio response: 80Hz-15KHz( $\pm 3\text{dB}$ )

Comprehensive SNR:  $>105\text{dB}$

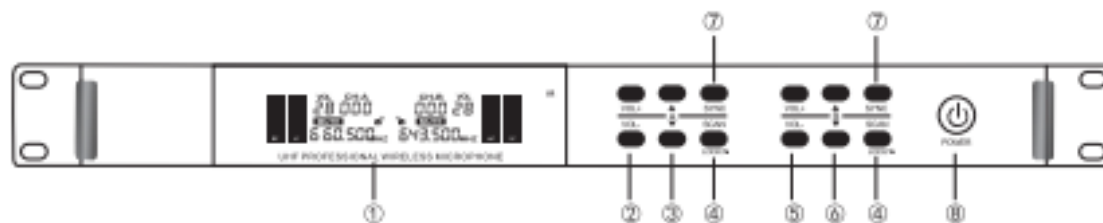
Comprehensive Distortion:  $\leq 0.5\%$

Operating Temperature:  $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$



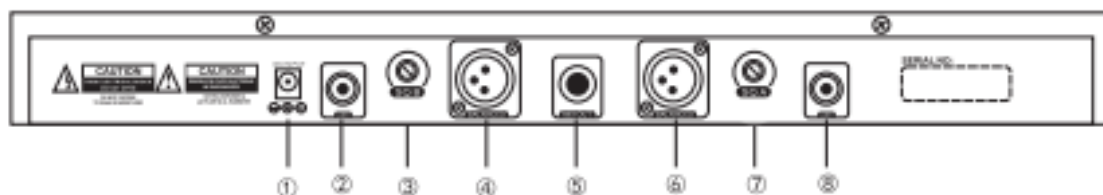
### 3.Model and function description and specification (reference) part of the panel

#### 1.Receiver function and instructions



#### Front Panel

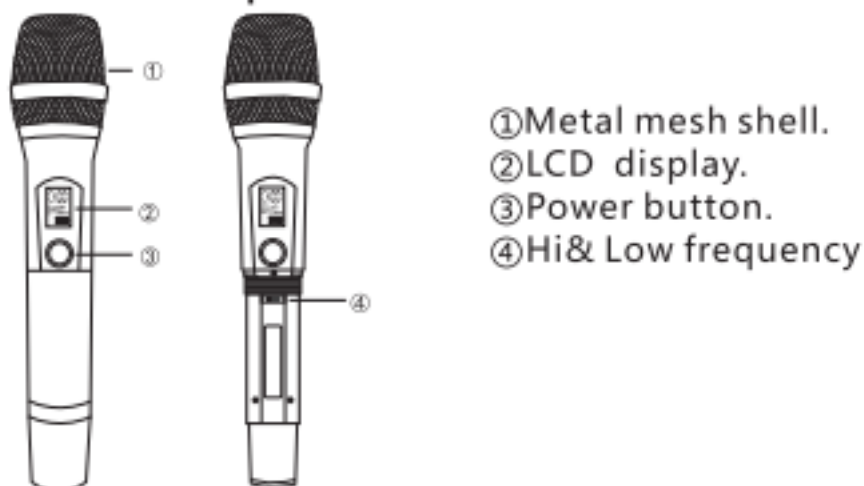
- ① LCD display.
- ②⑤ Volume: A or B channel volume adjustment.
- ③⑥ Up/Down: A or B channel frequency adjustment.
- ④ SCAN: one key auto searching the best suitable working frequency in current occasion and finish infrared synchronization automatically.
- LOCK: Keep pressing lock button the receiver system will go into lock on/off state.
- ⑦ SYNC: Infrared synchronization;
- ⑧ Power switch.



#### Back Panel

- ① DC INPUT interface.
- ②⑧ Channel A&B antenna interface.
- ③⑦ SQ A&B: Sensibility adjustable rotary knob, to adjust the antennas' signal reception distance.
- ④⑥ XLR balance output interfaces for A&B channels.
- ⑤ MIX OUT: 1/4" unbalanced output interface.



**Handheld microphone function introduction****Brief Introductions of The Receiver and Transmitter**

1. Turn on the receiver power, the LCD screen will display CH-A and CH-B working state. We can see the channel no. and frequency points, system lock on/off status, RF/AF signal conditions and IR indicator.
2. Press VOL+/VOL- button can adjust the volume;
3. Press ▲ or ▼ button can adjust to different frequency point;
4. Press SYNC button for infrared synchronization. Long Press LOCK button is into lock on/off state of CH-A or CH-B to avoid interference in using.
5. Press SCAN button into auto scanning, the system will speed up frequency to search out the best one and then will complete infrared synchronization automatically.

**Digital Pilot Series Induction Microphone System Features**

### Induction Function Turn On and Off

Turn on the handheld mic, after the back light disappear, press the power button and hold on (P.S: keeping press and don't release), 2 seconds later the handheld mic will turn off normally (Still keeping press the power button), wait about 10 seconds the handheld mic will turn on automatically, and display "9y on" (Means the induction function turn on) or "9y off" (Means the induction function turn off), now release the power button, the handheld mic will turn off and turn on again, handheld mic into normal working mode. Turn on and off the induction function are same operation like above, just need to repeat the steps again. Please be noted that in this whole process should keeping press the handheld mic power button and don't release it.

### OPERATION MENU OF LCD



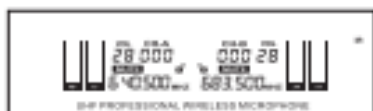
- Normal working state display as the left picture.

#### A. Infrared frequency



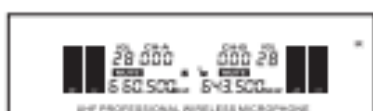
- Press the SYNC button, when the LCD screen display "Ir---", about 3 seconds the receiver frequency will synchronize to the transmitter, the system in working. See the left picture.

#### B. SCAN



- Press the SCAN button, the frequency will speed up, it means the system go into auto scanning and searching the best suitable frequency. See the left picture.

#### C. SYSTEM LOCKED OPERATION



- Keep pressing LOCK button, system will go into lock on/off state;

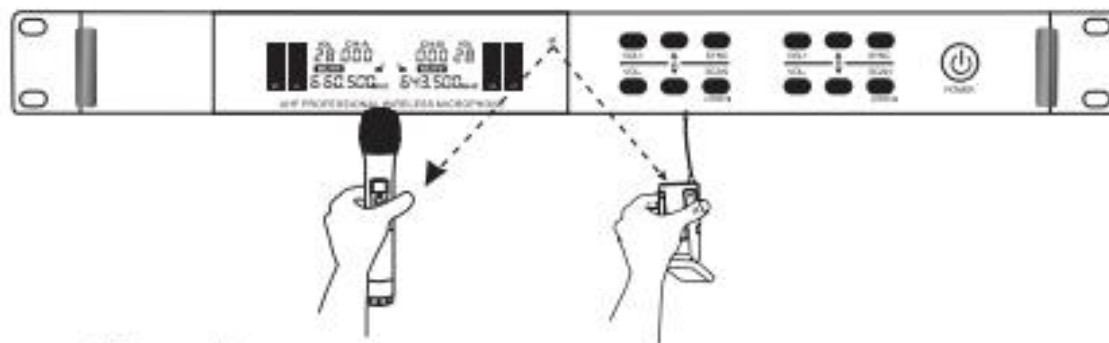
## 2.System settings (See Figure 1)

### (1)Frequency Selection and System Synchronization

A.Open the receiver and transmitter, put the transmitter close to the receiver, press SYNC button, if we can see the RF and AF signal appear, it means the system in synchronization and working, MUTE will disappear from the screen.

B.Press SCAN button into auto scanning, the system will speed up frequency to search out the best one and then will complete infrared synchronization automatically.

C.If need to adjust to a fixed frequency, please use ▲ or ▼ button to adjust. After finding out this frequency, press SYNC button to synchronize.



(Figure 1)

### (2)Multi System Settings

#### (Suitable for multi-units using together)

A.Turn on all receivers' power, meanwhile turn off all the transmitters.

B.Setting different frequency for all receivers.

C.Turn on the transmitter and do the synchronization accordingly.

Repeat the operation to each system in sequence.

※Please pay attention that you should put the transmitter close to the receiver IR port when you synchronize the frequency with the system.

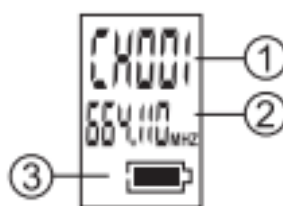




(Figure 2)

**(1) Receiver LCD instruction (figure 2):**

- ① RF signal
- ② AF signal
- ③ Frequency
- ④ Lock on/off symbol
- ⑤ CH-A/B
- ⑥ Volume display

**4. Transmitter Settings**

(Figure 3)

**(1) LCD Instruction for Handheld (Figure 3)**

- A.CHANNEL: It displays the current working channel number.
- B.Frequency: It displays the current working channel frequency.
- C.Battery: It displays the handheld battery status. When the battery power a low state, the battery sign will flash, should need to replace the battery to ensure the transmitter working normally.

### (3) IR Synchronization for the transmitter

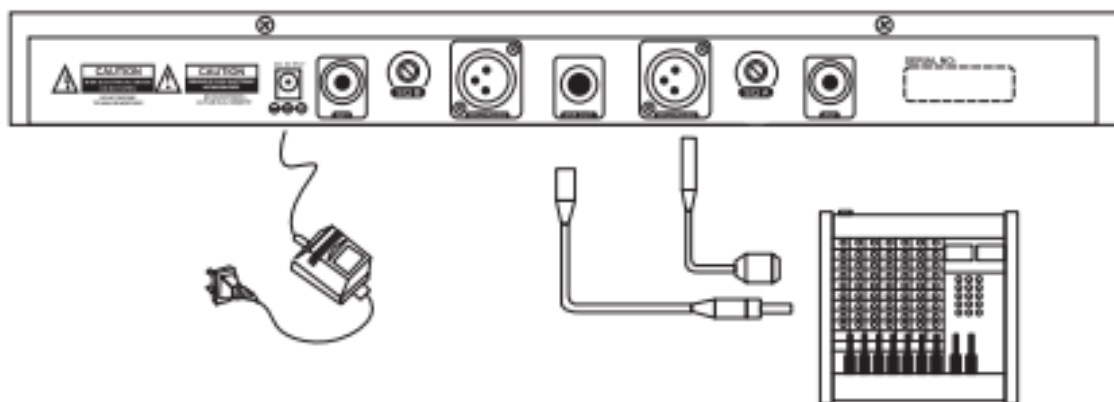
Transmitter can synchronize the working frequency automatically. Please check the guidance above for the IR synchronization for the transmitters from the single system setting.

### E.Tips for improving system performance

- \*I The transmitter and antenna should be kept in an accessible linear relative position.
- \*I Do not place the receiver close to the metal surface or close to any digital device (such as CD player, computer, etc.).
- \*I The receiver should be protected above 1M from the ground and not close to the wall as far as possible.
- \*I Transmitting devices such as cellular phones and bidirectional radios interfere with audio transmission. Transmitters and receivers should be kept away from these devices and other potential sources of interference.

### F.Connection

- 1.Connection instructions for dual-channel models (figure 4)



(Figure 4)

**G.Troubleshooting**

<b>Problem</b>	<b>Possible cause</b>
<b>No operation indication</b>	Transmitter's batteries are exhausted or DC in is not connected well.
<b>No RF signal</b>	Transmitter and receiver are not at the same channel
	Transmitter is out of range
<b>RF signal available, no audio signal, "Mute" appears on the display panel</b>	Transmitter is muted("MUTE")
	Receiver's squelch threshold is adjusted too high
	Transmitter doesn't transmit a pilot tone
<b>Audio signal has a high level of background noise</b>	Transmitter sensitivity is adjusted too low
	Receiver's AF output level is adjusted too low
<b>Audio signal is distorted</b>	Transmitter sensitivity is adjusted too high
	Receiver's AF output level is adjusted too high
<b>The use of short distance,Signal instability</b>	Transmitter set at a low-power
	Squelch is too high
	Receiver antenna set improper
	Surrounded by strong electromagnetic interference