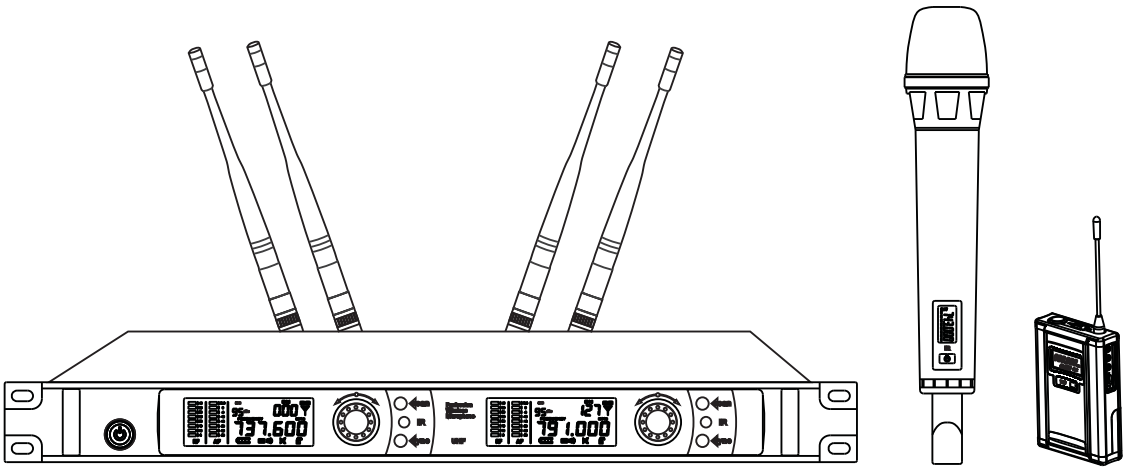
KONAN®
LABS

KRM-S2UVM

INSTRUCTION MANUAL



1. Safety and Environment

1. To reduce the risk of electrical shock, don't open the unit, there are not replaceable part inside.

2. Place check whether the AC voltage matches the power specification of receiver before using. If you seldom use it, please take out batteries from transmitter and plug from AC socket.

3. For the useless dry batteries, don't discard at random, lest to pollute the environment

4. Equipment in tropical or temperate climates can be used normally.

5. Don't place the flame on the equipment, such as lighted candles.

6. In order to hest dissipation, the gap of equipment between the walls or other objects shall not be less than 10cm.

7. Equipment should not cover the ventilation holes,such as newspaper,tablecloths, curtain and other things which obstruct the ventilation.

8. Don't near the liquid and tinder, also not put the vase, cup on it, in order to prevent the trouble and dangerous.

9. Don't put the equipment near to the heat sources such as radiator, heating ducts, amplifiers and etc. Also don't place this to sunlight directly, excessive dust, moisture, rain and the place near mechanical vibrations or shock. For perfect affection, keep away from electronic power lines, big metal object,computer, radar station and etc.

10. Li-battery in inner microphone, if you seldom use it, you should charge regularly every 6 months.

2. System Composition

1. These series compose of handheld microphones and receivers, including audio cable, batteries, assistant fixed rack, adjustment screwdriver, etc. There are several models for microphone and receivers, please read the detail according to the item number you ordered, and keep this operation manual to check at any time.

3.Basic Knowledge in Wireless Microphone

If you aren't familiar with wireless microphone, please read the details carefully.

3.1 About Band, Group, Chanel

Wireless microphone is the professional equipment through transmitter and receiving signal. The wireless microphone will transmit the radio wave and the receiver will receive the radio wave.

Work at the same time between transmitter and receiver. It is necessary to the same frequency between the transmitting and receiving radio wave, we called this work frequency. Adjustable frequency in the wireless microphone, the microphone and receiver will have multi-work frequencies, each work frequency will be a channel.And many frequencies nearby compose to be one frequency range, we call BAND. When more frequencies are in the band, we will apart to

some groups,each group will include 16 frequency(channels).

You can set up work frequencies (channels) with two ways, manual and automatic.

When you operate manually, you should adjust the receiver channel according to the instruction, and the microphone channels according to the receiver channels, which make the same frequency, it will work normally.

When you operation automatically, it will be the state in scan channels, the receiver will research all the channels, and will choose free channels to be the work channels. It will work in the selected channel in microphone through the IR synchronization.

3.2 About Interference

Wireless microphone is the equipment to transfer the sound with radio wave.And it need to transmit the radio wave and receive the radio wave. Here the interference will enter inevitably.

There are many radio wave signals in the space from other equipment such as TV transmitter, radar station, broadcasting station, wireless interphone,etc. Which will transmit their own radio wave, and these signals with different frequencies. The speaking, they will not be interference. But when the frequency of other signals is near to receive frequency of the receiver, it will cause interference. It is that the receiver gets the other signal which send out needless sound, especially the strong signal, it is easy to cause interference.

Other equipment near to receiver , for example, DVD, computer machine and so on, it will have mossy signal when working. These signals are weak, but the frequency is wide. It is easy to cover the receive frequency of wireless microphone receiver. When the receiver is near to these equipments, it will cause the noise when receiving the strong interference signals.

We always use so many sets wireless microphone in stage show, KTV room, classroom,etc. These microphone work in the mean time in little space. Each microphone will transmit the work signals and multi-mixed signals. When multi-microphone used meanwhile, multi-signal and multi-mixed signal will present to the space at the sames of receiver. Sometimes, these signals will enter into the receiver and put to use in the circuit of receiver, however, it will bring new frequencies.When the new frequency is near to receive frequency of the receiver, it will cause the interference, the receiver will have other microphone’s sound or noise.

Generally speaking, we reduce mixed signal from the microphone and improve the ability to select the frequency, in order to avoid the interference. In addition, there is a squelch circuit in the inner receiver of wireless microphone. When the signal is weak to squelch setting, the circuit will be turned off automatically. The squelch has set up when the produced the goods, it is suitable for many situation.When the squelch set too lower, the receiver can receive the weak signal, it shows the receive distance is far, but the anti-interference will be weaker, the weaker interference signal also can output through the receiver, when the squelch sets too high, the anti-interference ability of the receiver will be stronger and the distance will be shorter, it needs

the microphone near to the receiver, so there are enough signal to receive and output.

VHF band, it is 160~270 MHz band, because the application time is early, the interference signal in this space will be more. The products in this band are common to bring the interference. And VHF wireless microphone, it is the fixed frequency, the user can't change it, once meeting the interference, and it can't be use.

UHF band, it is 700~900 MHz band. The application is late, the interference signal in this space will be less, and the products in this band are not easy to bring the interference.

3.3 About acoustic feedback

In the work place, when pick up and send out the sound, it may cause feedback, the sound box sends out howling.

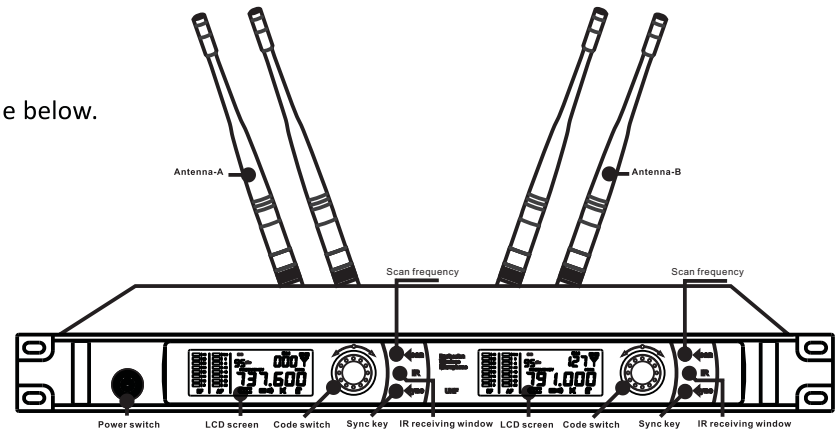
In the scene of picking up and sending out the sound, the sound is packed up by microphone. After the amplifier magnified, the sound box revert to the increased sound, and than the sound will be board cast back to the microphone, microphone pick up the sound again, continue to cycle. In the small volume, the cycle will cause the volume decrease. When the cycle repeats, the sound will decrease step by step until unable to listen. This situation will not produce howling. When the volume is big enough, every time the sound cycles back to the microphone will be the louder than before, in this way it will cause howling.

The feedback will damage the sound equipment, therefore it should be avoided according to the theory, and the solutions are as follows:

1. The system of the collectivity volume can't be too big, the reflectance of the sound is very serious, especially in the small room.
2. Amplify the sound in the room, you can use the soft absorbing sound material in the wall, ceiling or ground.
3. Please keep away the microphone from the sound box, avoid near to the working sound box.
4. Use special equipment such as compressor-limiter, acoustic feedback suppressor, frequency shifter, etc.

4. Receiver

The picture is shown on the below.



The receiver is UHF multi-channels wireless microphone, the feature are auto scan free channels, IR synchronization, ID validation and increased external squelch control.

4.1 Install the receiver

Take out the receiver from the package and put the 2pcs receiver antenna to contact the receiver antenna socket (ATN). And you should adjust the antenna direction in upward and upright to ground. Please pay attention, you should make sure there have the free signal to enter between the microphone and receiver, and the receiver should be near to performance area. And keep away from the big metal objects, walls, scaffolding, ceilings, etc at least 1.5m distance. Use the microphone to depart from the receiver more than 3m, and each microphone should keep 30cm distance to use.

4.2 Check and connect power

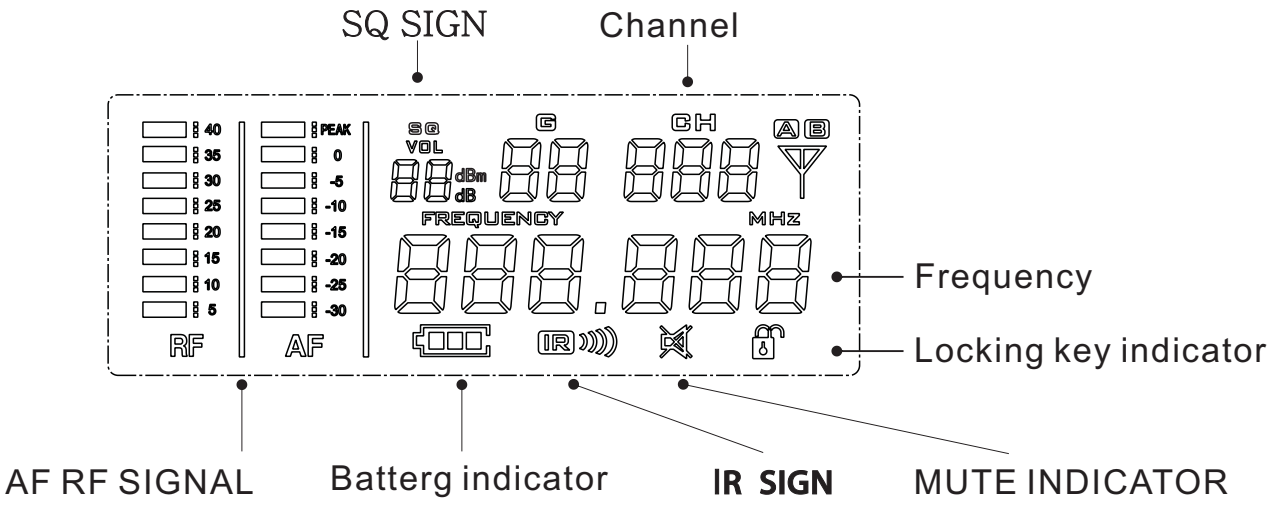
Check whether matched about the specifications between AC voltage adapter and the AC electric socket. If not match, please stop to use and contact your dealer. Otherwise it will damage the machine and and cause the dangerous. If matches, plug the output pin in power adapter to the DC INPUT jack in the rear panel of the receiver. And the adapter put into electric socket.

4.3 Connect the audio cable

One end of audio cable inserts into the unbalanced socket in receiver, and the other end inserts to mic IN socket in amplifier. Balanced socket is used to contact the mixer, and it needs to buy the cable by yourself. Please notice, don’t use the balanced socket and the unbalanced socket in the meantime.Lest to signal distortion.

4.4 Setup and turn on the receiver

Adjust the volume of the receiver and amplifier to “MIN” and push the receiver ON, then the LCD screen will light on and show the details, please see the picture as follow:



After turning on the microphone, the RF signal indicator in the receiver panel will light up when the frequency is the same between the receiver and the microphone. It shows having the available signal. If you speak to the microphone, the AF level meter of receiver will flash in term of the volume. Please notice, don't adjust the volume so large, least to cause acoustic feedback shout and damage the equipment.

4.5 Change the receive frequency

If you change the receive frequency, press the code switch on the left side in receiver panel, the "FREQUENCY MHz" symbol will flash, and rotate the left or right to change the frequency of the code switch, then press code switch to maintain the frequency and exit. The same way you can change the receive frequency on the right side. If no operation within three seconds, it will automatically quit frequency setting.

4.6 Setup the function menu

Turn on the receiver, you can press code switch into the menu, the Screen will show "-Set-". Loosen the key into the first menu:

"-SqL-": squelch setting. The range is -95 to -75, rotate left or rotate right of the code switch to change the squelch; notice: -95dB is long distance, antijamming capability is the weakest, -75dB is short distance, antijamming capability is the strongest. Press the code switch to enter into the second menu.

"ID": ID validation switch. You can rotate right of the code switch to turn on, it shows "ON", and rotate left to turn off, it shows "OFF"; When you turn on the ID validation, the microphone can normal to use after IR synchronization; then press code switch on the left into the third menu.

"LOC": the button of lock and unlock. You can rotate right of the code switch to lock, it shows "ON", and rotate left to unlock, it shows "OFF"; after this, it means finish all setting. If you press code switch on the left again, you'll get back to the first menu.

Any step above, you can press ESC to reserve the current setting and exit the menu.

You can operation on the right in the same way.

4.7 Operation of IR synchronization

Setup the microphone parameter in the Receiver menu, including transmitting power, backlight switch, ID validation switch and channels,etc; all these data should be set from receiver to microphone through IR synchronization operation. If ID validation turn on, the receiver will licensed, even if the frequency is the same, the microphone can't connect the receiver Each

licensed, which will cancel the last one. That is to say, at the same time, only one microphone can be received and output the signal, and others can not.

When receiver did not enter the other setting, Then press “SYNC” key on the left of receiver, the left screen will show “IR-----”, it means IR synchronization will start, the “------” indicator symbol will be flowing, it shows to transmit the date, the date will be transmitted again and again, and keep 5 seconds, within this time, make the IR window of microphone face to IR transmitting window of receiver in 1 meter, the receiver screen will appear “PASS” after a while. It means finish this operation. If it shows “FAIL”, IR operation can not finish.
You can operation on the right in the same way.

If you don’t finish this operation, you can’t see the symbol “P------”, the microphone and the receiver will be the original settings, including the work frequency, ID information. The microphone still work in the original setting and not cause the unworkable states by different new date.
nnel. Finishing scan, for a while, enter into IR synchronization and shows flowing “IR-----”. Here you should take the related microphone which has been opening and start to IR synchronization according to the above instruction. In the process of scan or IR synchronization, you can press code s
There is an reason for unsuccessfully IR synchronization, you don’t make IR receive window face to IR transmit window when the symbol “------”is flowing.

4.8 Automatically scan free channels and auto IR synchroniza receiver tion

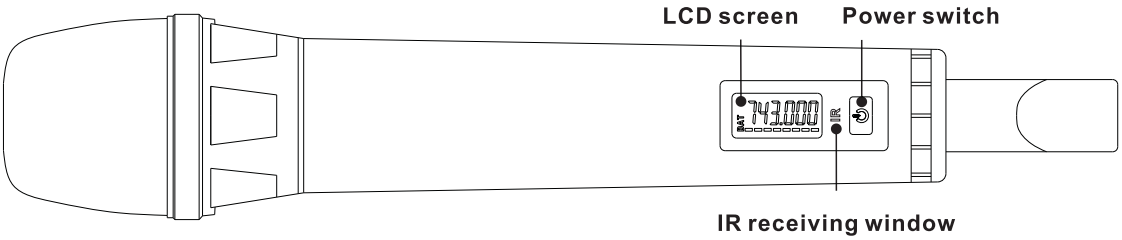
Receiver can scan the free channels and IR synchronization automatically. When scan automatically, the receiver will scan all the channels in the brand of receiver, and will select the free channels with weakest interference to IR synchronization.

If you need this operation, please press “SCAN”, and the setup symbol will flash. After staring to scan, the screen will appear mutative frequency and the chawitch to exit at any time.

Only finish the IR synchronization, the receiver and microphone will change the settings. If exit or IR synchronization are unsuccessfully, the receiver will be the original status and keep the normal work with the microphone.

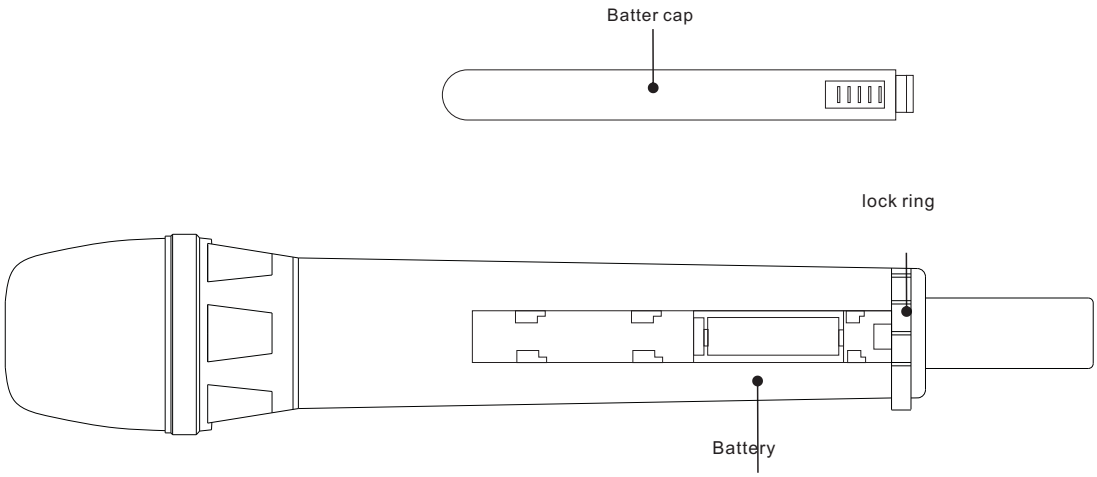
5.Handheld Microphone

Handheld microphone have IR function, high and low power setting, etc. External structure is follows:



5.1 Install the battery

Take down the end of the tube, show battery compartments, insert two AA size alkaline batteries in right polarity marks as shown in the figure below:

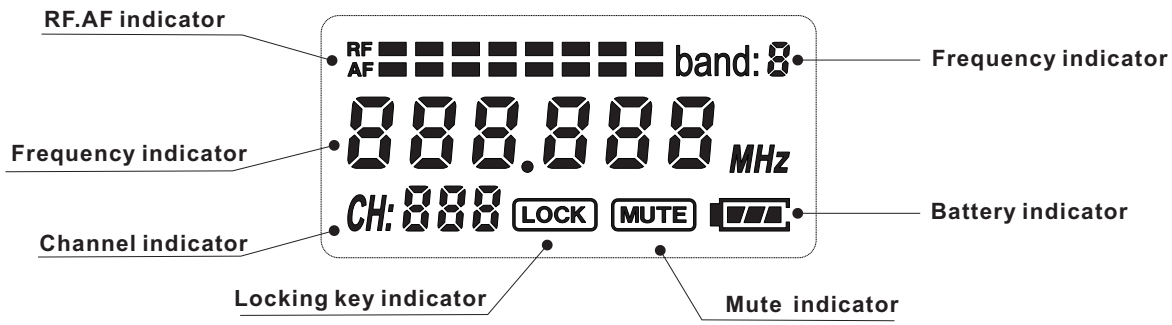


5.2 Turn on or turn of the microphone

Press POWER switch 1 second, the frequency, battery power, transmitting power, etc will show on the screen.

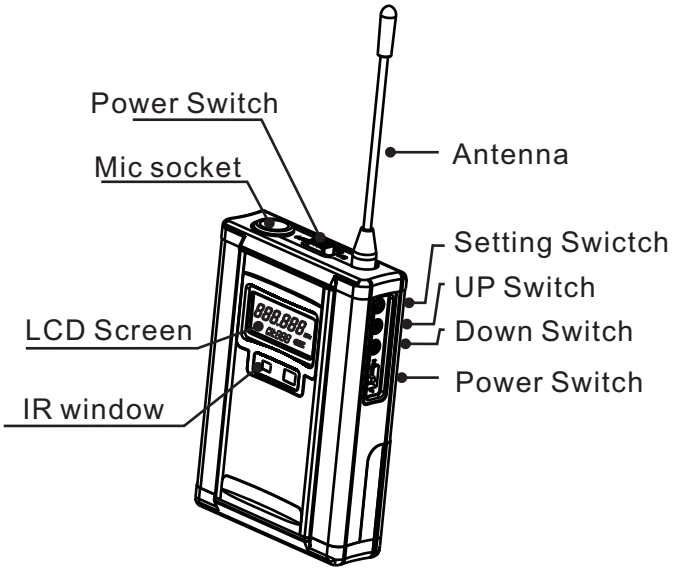
When you use, please pay attention to the battery indicator, When power is empty, the screen started flashing, please replace the battery in time, otherwise the microphone will automatically shut down.

If you turn off press power switch again 2 second, until it show “OFF”.



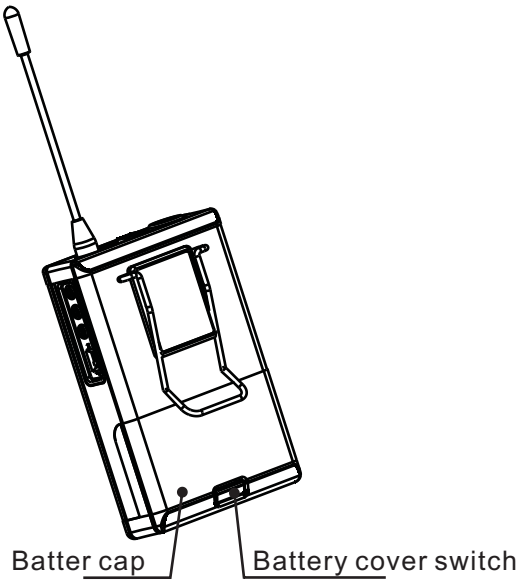
6. Belt Pack Microphone

Belt pack microphone with the IR synchronization and ID validate, external structure is follow:



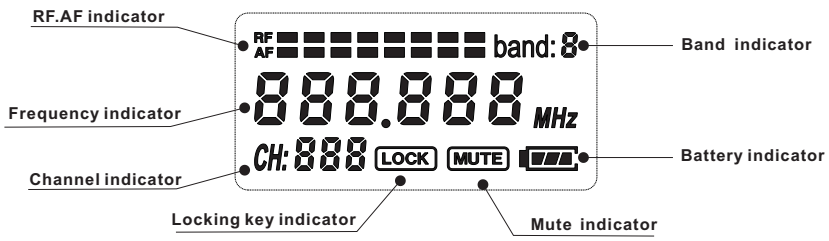
6.1 Install the battery

Open the right side of the battery cover, insert two AA size batteries, please note the polarity of the batter, then close the battery cover.



6.2 Turn on or turn off the belt pack microphone

Push the toggle switch to “ON”, LCD screen will display the soft ware version number in the first, then will shows the frequency, battery power, transmitter power, etc. Please see the picture as follow:



In using process, please note that the battery power on the screen, when the battery indicator is empty, that meaning power can only be maintained for about 10 minutes, please replace the

batter in time. When the battery runs out, it will shows “bAtOFF” in the screen, and then shut automatically.

Push the toggle switch to “OFF”, it will shows “OFF”, that means turn off the microphone.

6.3 RF setting

Belt pack microphone and can set RF L or H to adapt the different situations. H (high power) used in far distance situation such as stage. L (lower power) used in near distance and control operation distance range situations such as KTV, school, church, etc

You will see the power switch on the left side of the microphone, you can adjust it to H or L. (H for high power) (L for lower power)

RF indicator in the screen will show the current state of power, RF indicator in the screen shows 4 segment, it means near operational distance. RF indicator in the screen shows 8 segments, it means far operational distance.

6.4 Luck and unlock operation

Belt pack microphone with the lock and unlock function which can adapt difference situations.

When locking, please turn off the belt pack microphone, then press “UP”, if the screen show “LOC ON”, it means succeed to lock.

When unlocking, please turn off the belt pack microphone, then press “UP”, if the screen show “LOCK OFF”, it means succeed to unlock.

6.5 Adjust the volume and backlight

Belt pack microphone have function to adjust the volume and backlight which can adapt the different situation.

Belt pack microphone can adjust the high volume and low volume. When first to adjust the volume, please unlock microphone, then press “SET”, the screen will show “VOL” and 4 segment, you can press up and down to adjust the volume. For every 2 segments by increasing decreasing, adjust according to need. (note, when you adjust the volume, please set up the same volume of 2 microphones). After setting, press “SET” again, the screen will show “LEdON”, press up or down to adjust “LEdOFF” or “LEdON”. The operating will maintain and ESC within 3 second.

Note, any keys you press will be automatically confirm within 3 seconds and return to normal working states. When finished, please lock the belt pack microphone.

7. Specifications

7.1 Specifications of microphones

	Transmitter
Freq Range	700-800MHz

Freq Number	128+128
Freq Stability	±10ppm
Modulation	FM
RF Output	≤10mW
Audio Bandwidth	40~18000Hz
T.H.D at 1kHz	≤0.5%
Power Supply	2 × 1.5V AA Size
Battery Life	6～15 hours

7.2 Specifications of receivers

	Receiver
Freq Range	730~830MHz
Freq Number	128+128
Oscillation Mode	PLL Synthesized
Freq Stability	±10ppm
Receive Mode	Supper heterodyne and twice mixed
Input Sensitivity	-95~-75dBm
Audio Bandwidth	40~18000Hz
T.H.D at 1kHz	≤0.5%
S/N Ratio	≥110dB
Audio Output	Balanced XLR and unbalanced 1/4 socket
Power Supply	100V~240/50~60Hz
Consume Power	≤8W

8. Hackneyed questions and solutions

Phenomenon	Reason	Solutions
Nothing to show in the microphone screen	Make a wrong installation about batteries polarity	Inspect the polarity and install it again
	Out of power	Replace the batteries
	Battery plate dirty and rust	Clean or change the batteries
Receiver haven't response when electrify	The socket do not electrify	Check the socket
	Receiver adapter are damaged	Check or replace the same specification of power adapter
Receiver can't receive the signal	Microphone haven't turn on	Turn on the related microphone
	The frequency not match	Adjust the frequency according to the operation manual
	Over the operation distance	Back to correct operation distance
	Unauthorized to IR synchronization	Operate the IR synchronization and get the authorization
Receiver have reception but no sound	The volume is to MIN	Adjust the volume of the receiver and amplifier
	Audio cable connected wrong or badness	Check it and connect the audio cable correctly
There is cacophony in the sound box	Sound feedback	Reduce volume, microphone never face to the sound box, and keep some distance from microphone to sound box
The sound is intermittence	Over the operational distance	Back to the correct operation
The operational distance is too short	Disorder environment	Avoid the complicated condition, such as bid metal objects, walls, scaffolding, etc

Above contents are subject to change without prior notice.

We tried our best to complete the manual, if the manual has any ambiguous or mistak e, please verify to our company in time. For any loss or damage without verification t o our company, we won't bear any responsibility.

It is recommended that all maintenance and service for the products should be carried out by us or our authorized agents. We won't bear any responsibility without our auth orized person to do it.