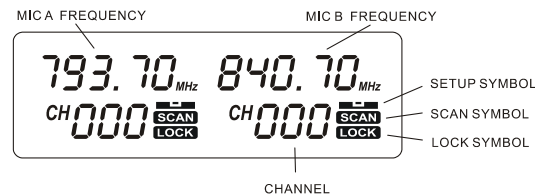### 4.2.3 Connect the audio cable

One end of audio cable insert into the unbalanced socket in receiver, and the other end insert to MIC IN socket in amplifier. Balanced socket is used to connect 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.

4.2.4 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 follows.

The frequency range is 793.70~821.10MHz in the receiver，it is A microphone (blue color) with 138 channels by each space 200KHz, or 840.70~868.10MHz, It is B microphone (yellow color) with 138 channels by each space 200KHz. Please notice, for the local demand, the frequency, channels and channel space will be changed.

The SETUP symbol indication shows the currently adjustment in the left or right; Scan symbol shows the scan automatically state; Lock symbol shows the receiver key has been locked and not to adjust.

After turning on the microphone, the blue 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 terms of the volume. The volume button of the receiver and amplifier to adjust is in the middle place. Please notice, don't adjust the volume so big, lest to cause acoustic feedback shout and damage the equipment.

4.2.5 Change the receive frequency

If you change the receive frequency, press the key SET/TAB in the receiver panel, the SETUP symbol in the left side will flash, it shows the adjustment state. You can change the receive frequency by pressing UP/MENU or DOWN/SCAN. If confirm, you should press the IR/EXIT key to exit. Or press SET/TAB again before exit, the same way you can change the receive frequency in the right side.

4.2.6 Setup the function menu

Receiver 8228 can be setup the functions such as squelch, microphone transmitting power, microphone backlight switch, ID validation switch and etc. Pressing the UP/MENU switch then turn on the receiver, you can enter into the menu, the Screen will show"-Set-", Loosen the Button into the first menu:

"-SqL-": squelch setting, the range is -95 to-67, it is 15 levels, you can press UP/MENU or

DOWN/SCAN to change the squelch; Press SET/TAB into setting the right side; Press SET/TAB enter into the second menu:

"rFOUt": Microphone transmitting power setting, you can press UP/MENU to be high, it shows "H", also press DOWN/SCAN to be low, it shows "L". Press SET/TAB to set the transmitting power for microphone B (yellow color) and it will be took effect after IR synchronization; Press SET/TAB enter into the third menu:

"LIgHt": Microphone backlight switch. You can press UP/MENU to turn on, it shows "ON", and press DOWN/SCAN to turn off, it shows "OFF". Press SET/TAB to backlight setting for microphone B (yellow) and it will be took effect after IR synchronization; press SET/TAB to enter into the forth menu:

"IdFUN": ID validation switch. You can press UP/MENU to turn on, it shows "ON", and press DOWN/SCAN to turn off, it shows "OFF"; Press SET/TAB to set the right side; press SET/TAB to enter into the fifth menu:

"SHIFt": It is the factory reserve setting, you needn't adjust it. A microphone is C06, B microphone is C11.

Any step above, you can press EXIT/LOCK to reserve the current settings and exit the menu.

The squelch setting, which can affect the receive distance and anti-interference ability of the receiver: when to be -95, the receive distance is farthest but the anti-interference ability is weakest. When to be -67, the receive distance is nearest but the anti-interference ability is strongest. You can set up according to your need.

The microphone transmitting power setting will change the signal covering range. At the same time also change the operation distance, when the transmitting power is high, the signal covering range will be big, the operation distance will be far; and when the transmitting power is low, the results are on the contrary. In the stage show, in order to assure the enough operation distance, you should set the microphone transmitting power to be high. In the KTV room, school, etc, it needn't too far operation distance; you should set to be low, in order to reduce the signal covering range to reach the well affection.

The microphone backlight switch setting, which save the power when you need, when "OFF", the microphone backlight only light on when turning on/off, it will be disappear after a few seconds. It saves about 5% power to extend the battery life.

The ID validation switch setting, it is connected the features of microphone in the special situations, When the microphone are not the ID validation features, it should turn off this to work normally. Generally speaking, this feature should be turned on.

4.2.7 Operations of IR synchronization

Setup the microphone parameter in the Receiver 8228 menu, including transmitting power, backlight switch, ID validation switch and channels, etc; all these should set the data from receiver to microphone through IR synchronization operation. If ID validation turn-on, the receiver will licensed

to the microphone in IR synchronization; if without licensed, even if the frequency is the same, the microphone can't connect the receiver. Each licensed, which will cancel the last one. That's to say, when the same time, only one microphone can receive and output the signal, and others can not.

If you operate IR synchronization, please turn off the microphone, and then press IR key 2 seconds, the left screen will show "------" it means IR synchronization from the left side to the right side, which will start automatically after 2 seconds. If you need IR synchronization singleness to the left side or the right side, please press SET/TAB in 2 seconds, the "------" will be switched between right and left screen. It will be started automatically after stopping to press the key about 2 seconds.

Starting to IR synchronization, the "------" indicator symbol will be flowing, it shows to transmit the data, the date will be transmitted again and again, and keep 5 seconds. In the meantime, turn on the related microphone, make the IR receive window of microphone face to IR transmitting window of receiver in 2 meters, the receiver screen will appear "P-----"after a while. It means finish this operation. If you want to end IR synchronization, please press EXIT/LOCK.

If you don't finish this operation, the microphone and the receiver will be the original settings, including the work frequency, ID information. The microphone still work in the original settings and not cause to different content unworkable.

In fact, there are some reasons for unsuccessfully IR synchronization: maybe you don't turn on the microphone in the correctly period (during the symbol flowing); you don't use IR receive window to IR transmit window when you turn on the microphone; Use microphone B and receiver A to IR synchronization, or use microphone A to receiver B to do it.

4.2.8 Automatically scan the free channels and auto IR synchronization

Receiver 8228 can scan the free channels and IR synchronization automatically. When scan automatically, the receiver will scan all the channels in the band of receiver, and will select the free channels in weakest interference to IR synchronization.

If you need this operation, please turn-off the microphone and press DOWN/SCAN about 2 seconds, the left screen will show SCAN symbol, and the "MHz" will flash. Shows it will scan and IR synchronization from left side to right side after 2 seconds. If you need synchronize singleness to the left or right side, please press SET/TAB in 2 seconds. All above content will be switched between right and left screen, it will be started automatically after stopping to press the key about 2 seconds.

After starting to scan, the screen will appear mutative frequency and the channel; Finishing scan, for a while, enter into IR synchronization and shows flowing "-----". Here you should turn on the related microphone and start to IR synchronization according to the above operation. Microphone A (blue) is related to the left side of the receiver, microphone B (yellow) is related to the right of the receiver.

In the process of scan or IR synchronization, you can press EXIT/LOCK to exit at any time.

Only finished the IR synchronization, the receiver and microphone will change the settings.

7．Specifications

7.1 Specifications of microphones

Freq Range	614.200-697.800MHz
Freq Number	138/122
Freq Stability	±10ppm
Modulation	FM
RF Output	10~30mW
Audio	40~18000Hz
T.H.D at 1kHz	≤0.5%
Power Supply	2×1.5V AA Size
Battery life	8~30 hours

7.2 specifications of receivers

Freq Range	
Freq Number	138+122
Oscillation Mode	PLL synthesized
Freq Stability	±10ppm
Receive Mode	Super heterodyne and twice mixed
Diversity Type	--
Input Sensitivity	-95~67dBm
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 Supplu	100V~240V/50~60Hz
Consume Power	≤8W

Means work states; push down it and the LCD screen will show "OFF", it means turnoff states.

2.1.3 Lock and unlock the key

Press "UP" and then turn on, the LCD screen will show " LOC ON", loose the key, the microphone will enter into the normal work states, the method to unlock the key is the same as lock

But please pay attention, the key operation (UP/DOWN/SET) is not valid when locked, but turn on/off, IR synchronization, high-low power contronl and unlock function is valid.

2.1.4 Adjust the channel

In the normal states, press "UP" or "DOWN" to plus/reduce the channel, keep press it to adjust the channel continuously and quickly. Please loose the key when adjust the frequency you need, the microphone will confirm it automatically and refresh the work states after two seconds.

2.1.5 Adjust the blacklight and pickup-sound sensitivity

In the normal states, press "SET" to pickup sound sensitivity and adjust the backlight mode. Pickup sound sensitivity shows "VOL" and several line; Adjust the backlight mode shows "LED ON" or "LED OFF", press "SET" to change between these.

In the menu of adjusting sensetivity, press " UP" shows high pickup sound sensitivity, the LCD screen will show "VOL" and 7 line; press "DOWN" to be low pickup sound sensitivity, the screen will show "VOL" and 4 line.

In the menu of adjusting backlight, press "UP" to be light on constantly(not energy saving), the screen shows "LED ON"; press "DOWN" to not light on constantly(energy saving mode), the screen shows "LED OFF"

After finish this, please loose the key, the microphone will confirm it automatically and refresh the work states after two seconds.

2.1.6 High/low power contronl

There have the switch to control the high/low power in the afterbody of microphone, when the switch moves to "H", the microphone will enter into the high power transmitting state, the RF in the screen will show 7 line and the microphone has far operation distance. When move to "L", it shows low power transmitting state. the RF in the screen show 4 line and the microphone has near operation distance.

2.1.7 IR synchronization

At first, start IR synchronization function of the receiver, when the receiver enters into IR state, please put the red window in the back of the microphone to the IR transmit window of the receiver, when the microphone receive the legal singal, it will autosave and refresh the work state, this operation can be done in 1 meter away from the receiver.

8 Hackneyed questions and solutions

Phenomenon	Reason	Solutions
Microphone indicator don't light on when turn on the power switch	Microphone working normal	The LOWBAT indicator of some microphone won't light on in working normal, it doesn't matter
	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 battery plate
LOWBAT indicator light on or change the color	Low in battery	Replace the batteries
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 of 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 have no reception	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 operation distance	Back to the correct operation distance
The operation distance is too short	Disorder environment	Avoid the complicated condition, such as big metal objects, walls, scaffolding, etc

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