

Disposal

Dispose the unusable device according to valid regulations.

Disposal of spent batteries/accumulators

You are required by law to return all spent batteries. **Disposing of used batteries with domestic waste is prohibited!**



2005-08-13

Batteries / NiCad cells containing toxins are marked by accompanying symbols that refer to the prohibition of disposal with domestic waste. The designations for the decisive heavy metals are: **Cd**=cadmium, **Hg**=mercury, **Pb**=lead. You may return spent batteries/accumulators free of charge to the recycling centres, our outlets or anywhere else where batteries/accumulators are sold.

By doing so, you fulfil the legal requirements and contribute to the conservation of our environment!

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MIPRO

Digital Wireless Microphone Systems

Instruction Manual

ACT-8H : DIGITAL WIRELESS HANDHELD MICROPHONE

ACT-8T : DIGITAL WIRELESS BODY PACK TRANSMITTER



DIGITAL WIRELESS HANDHELD MICROPHONE

ACT-8H DIGITAL WIRELESS HANDHELD MICROPHONE

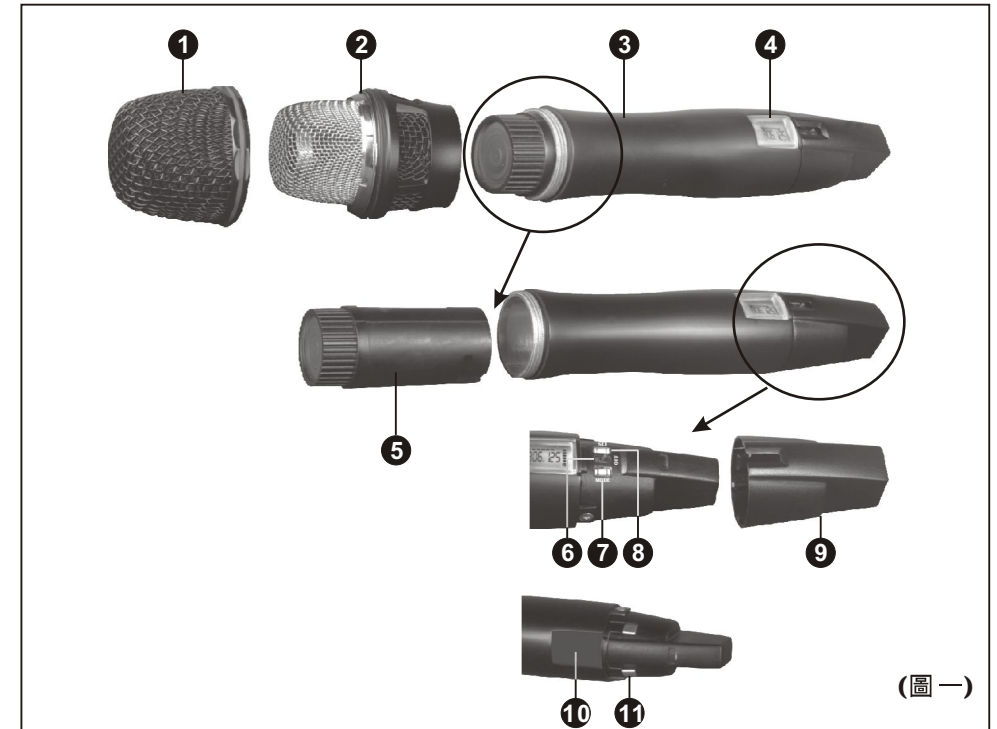


Main features:

1. The world's first 24-bit true digital handheld wireless microphone, combining the best design and the most advanced features.
2. Magnesium alloy housing offers a comfortable feel, balanced weight allocation and special surface finishing, giving it a truly professional appearance and quality.
3. Available in three colors: black, rose metallic and blue diamond. Custom-made colors are also available for special requirements.
4. Anti-roll & anti-pop microphone capsule module with extremely low touch noise characteristics.
5. Optional interchangeable microphone capsule modules.
6. Bright LCD display shows working channel, battery status, input level and error codes.
7. Integrated antenna provides maximum transmission efficiency and the patented color rear caps protect the on/off as well as the audio sensitivity switches while providing easy channel identification.
8. Built-in and detachable lithium-polymer (Li-Poly) battery pack can be recharged alone or together with the transmitter. Eight continuous hours of operation are possible due to its compact size and high-efficiency circuitry design.
9. Second generation of the world's first ACT function rapidly and precisely sets up the transmitter frequency.

DIGITAL WIRELESS HANDHELD MICROPHONE

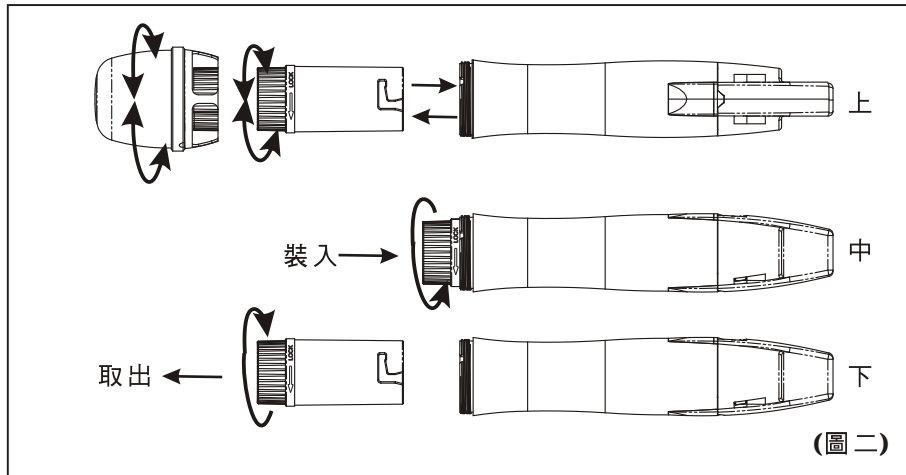
1. Part Names and Functions



1. Upper Grille: Provides access & protection to capsule.
2. Capsule Module: Metal grille integrated to protect the capsule.
3. Housing: Houses various PCB and Li-Poly battery module.
4. LCD Display Panel: Displays group, frequency, gain, battery level, input SPL and error code.
5. Lithium-Polymer Battery Back: Built-in and detachable Li-Poly battery module can be recharged alone or together with transmitter; gives 8 hours continuous operation time.
6. Power Switch: Switch to "ON" when using microphone and "OFF" position when not.
7. MODE: Mode selection button.
8. SET: Parameter selection button.
9. Color Rear Cap: Designed to protect the ON/OFF switch to help prevent the user turning off the microphone during use.
10. ACT Receptor: Signal reception via the ACT function; automatically programs the frequency and the encryption code from the receiver.
11. Battery Charging Contact: For charging battery module.

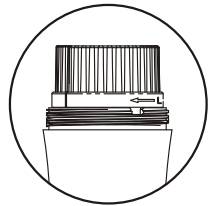
DIGITAL WIRELESS HANDHELD MICROPHONE

2. Battery Removals and Installation

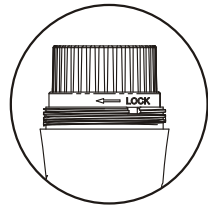


Open the upper grille and capsule module, then turning the battery pack in a counterclockwise direction in order to replace the battery (see diagram 2). To reinstall the battery module after loading the new battery, turn it in a clockwise direction (see diagram 2).

OPEN的字對準凹槽即可取出



LOCK的字對準凹槽表示安裝成功

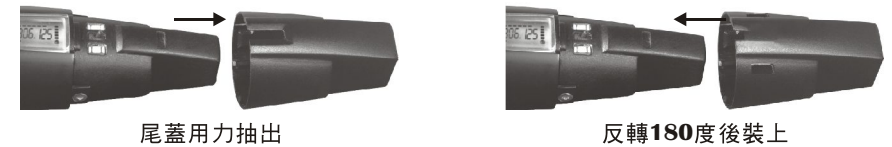


****NOTE: When microphone is not in use, please turn the power off. Battery pack can be recharged while in the transmitter or remove from transmitter and charged alone.**

DIGITAL WIRELESS HANDHELD MICROPHONE

3. Rear Cap On/Off Switch Protection

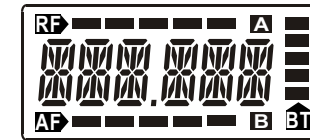
The patented color rear cap serves two purposes, provides easy channel identification and protecting the toggle on/off switch. It allows the on/off switch to either be exposed or concealed as desired. You can avoid unintended switching off of the microphone by rotating the color rear cap 180 degrees to cover the on/off switch completely.



****Note: When using the microphone, the color rear cap must be in place.**

4. LCD Panel Functions

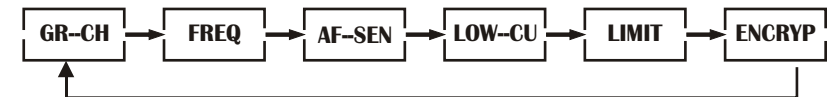
Fully Lit VFD Display



Function Selection:

Mode Switch: To select from different menu

The LCD panel has 6 functions displayed sequentially; their respective descriptions and operations are as follows:

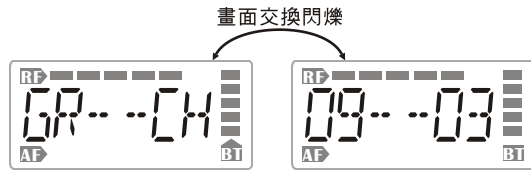


A. Operation Guide

- Press MODE (7) to access the 6 different functions. Once a function is selected, it starts flashing on the screen. If parameter needs to be modified on selected function, press SET (8) to modify the value while the display is still flashing. Once done, leave it for 5 seconds until it stops flashing and the selection will be programmed into the transmitter.

DIGITAL WIRELESS HANDHELD MICROPHONE

(1) GR-CH: Displays Information of Group and Channel



如在5秒中都沒被操作，畫面將停止閃爍。

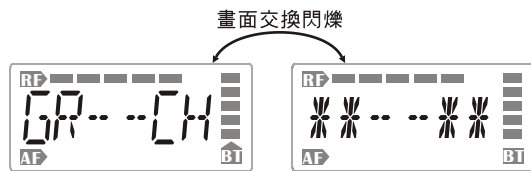
A. Operate via MODE Button



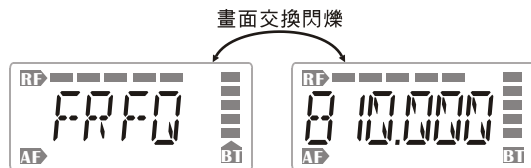
B. Operation Guide:

- Press "MODE" and stop on "GR-CH" function, the display showing current group and channel will be flashing. After 5 seconds, the display will stop flashing.
- "GR-CH" function is added to display group and channel information. Changing current group and channel must be done on the receiver.

****NOTE: When program a special frequency via monitoring software; LCD screen cannot display the number. This is because this special channel is not in the preset group and channel. Therefore, LCD panel will look like illustration below.**



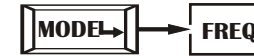
(2) FREQ: Displays Information of Transmitter Frequency



如在5秒中都沒被操作，畫面將停止閃爍，並停留在數字。此數字單位為"MHz"。

DIGITAL WIRELESS HANDHELD MICROPHONE

A. Operate via MODE Button



B. Operation Guide:

- Press "MODE" and stop on "FREQ" function, the display showing current frequency will be flashing. After 5 seconds, the display will stop flashing.
- "FREQ" function is added to display frequency information. Changing current frequency must be done on the receiver.

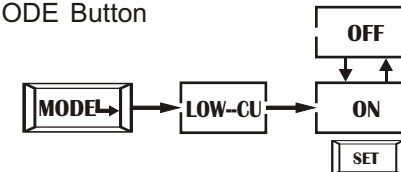
****NOTE: To modify transmitter's group, channel and frequency, all three must be set at the receiver and transmit the new setting to transmitter via ACT.**

(3) LOW-CU: Setup and Change of Low Frequency Cut Off



如在5秒中都沒被操作，畫面將停止閃爍。

A. Operate via MODE Button



B. Operation Guide:

- Press "MODE" and stop on "LOW-CU" function, the display showing current state will be flashing and is ready to be modified.
- Press "SET" button to change to "ON" or "OFF" as desired.

****NOTE: When the LOW-CU function is "ON", the frequency response below 100Hz will decrease about 4dB with a slope of -6dB/Octave.**

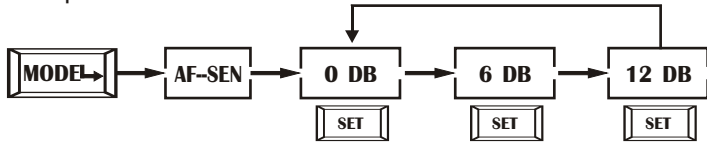
DIGITAL WIRELESS HANDHELD MICROPHONE

(4) AF-SEN: Setup and Change of Input Sensitivity



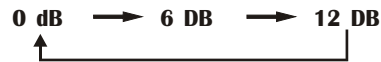
如在5秒中都沒被操作，畫面將停止閃爍。

A. Operate via MODE Button



B. Operation Guide:

- Press "MODE" and stop on "AF-SEN" function, the display showing current state will be flashing and is ready to be modified.
- Every push of "SET" button, the dB value increases by 6dB to a maximum of 12dB.



**NOTE:

- The higher the gains are set, the lower the dynamic range for signal input. Meanwhile the danger of unwanted noises and feedback getting into the system would obviously rise.
- It is advisable to generally set the sensitivity to a level between 0dB-6dB.
- When set at 0 dB, the maximum SPL for handheld microphone is 145dB.

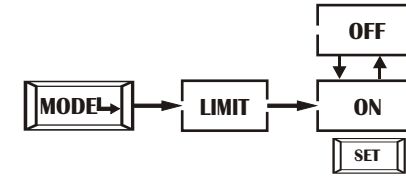
(5) LIMIT: Setup and Change of Input Limit



如在5秒中都沒被操作，畫面將停止閃爍。

DIGITAL WIRELESS HANDHELD MICROPHONE

A. Operate via MODE Button



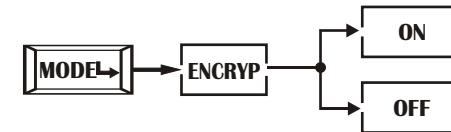
B. Operation Guide:

- Press "MODE" and stop on "LIMIT" function, the display showing current state will be flashing and is ready to be modified.
- Press "SET" to change the setting to "ON" or "OFF".

****NOTE: When the LIMIT is "ON", the maximum output of the receiver is limited to 1V.**

(6) ENCRYP: Displays Information of Encryption

A. Operate via MODE Button



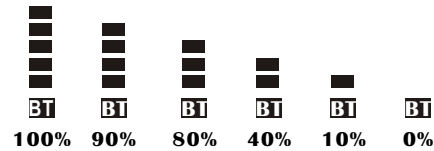
B. Operation Guide:

- Press "MODE" and stop on "ENCRYP" function, the display showing current state will be flashing.

****NOTE: "ENCRYP" function is added to display status information only. Changing of current status must be done from receiver via ACT.**

DIGITAL WIRELESS HANDHELD MICROPHONE

7. BT: Displays Information of Battery Level



When the battery level drops down to 10%, please replace or recharge the battery. If the battery continues to be used at a very lower level, the LCD will display "PG--OFF" and then automatically switch off to avoid over-discharging the battery.

8. ERR: Error Code

If the LCD displays "ERR" after turning on the power, it indicates the operation is not correct. The error codes are as follows:

- ROM-ER → Transmitter does not have the initial data so the microphone is completely dead.
- ERROR1 → Failure on RF circuitry, frequency can not be programmed.
- NO---O3 → Frequency to be programmed into the transmitter exceeds its highest frequency of designated frequency band of the transmitter.
- NO---O4 → Frequency to be programmed into the transmitter exceeds its lowest frequency of designated frequency band of the transmitter.

****NOTE:**

NO---OR3 and NO---OR4 will not change transmitter's original frequency, and the transmitter still operates normally with error message on display.. To remove error message from display panel, please switch off the transmitter and switch it on again.

(9) PG-OFF: System Turning Off

When the power is turned off, the LCD displays "PG-OFF" indicating the system is at the state of shutting down and then automatically cuts the power off. The display panel has no further message afterward.

DIGITAL WIRELESS HANDHELD MICROPHONE

5. **Cautions**

1. Unless necessary, do not remove the battery module from the microphone when the microphone needs to be charged. The best way is to put the whole microphone into the charger for recharging; this prolongs life of contact spring on the capsule module.
2. Traditionally designed microphones have an antenna protruding on the bottom of the housing. Modern designs have a built-in antenna in the upper or lower housing. Antenna section of ACT-8H is located on the end of the transmitter (where the color cap is). Users should avoid holding the microphone over or near antenna section as this will deteriorate transmission efficiency, and deterioration gets even more severe if users hold the microphone directly above the antenna with both hands..
3. Many performers tend to hold the microphone by the grille. Unfortunately, this position seriously degrades both the sound quality and directionality of a microphone. Even the most expensive microphone will have its original sound quality compromised by this method. Grabbing a microphone by the grille will isolate the capsule's acoustic resonance circuit and or change the capsule resonator's frequency. This results in an inferior performance in both frequency response and the separation of directionality. In addition, a palm's sound-focusing effect will tend to strengthen resonances in certain frequencies and can cause unwanted echo.
4. A proper technique is required for using directional microphones because the distance between the microphone and your mouth has a significant impact on sensitivity and performance. There is an inverse relationship between microphone sensitivity and the distance from the mouth to the microphone. Consequently, performers with a "weaker" sound level cannot expect to hold the microphone too far away from their mouth and compensate by turning up the amplifier volume to increase the sound level as this can easily cause echo or feedback. In contrast, performers with a "louder" sound level should not hold the microphone too close as this can easily result in distortion by causing the amplifier system to be overloaded. Furthermore, a large-diaphragm directional microphone has a very distinct proximity effect. When the microphone is close to the mouth, the bass response is strengthened as the distance gets closer. Therefore, if a performer's sound is insufficient in bass, they can hold the microphone closer and use the proximity effect to help compensate for the lower bass level. Conversely, if a performer's voice is too heavy in the bass register, increasing the distance between the microphone and their mouth will decrease the proximity effect and reduce the bass response, thus making their voice become clearer and brighter.
5. It is recommended to keep the grille and sponge windscreen clean to avoid any substance blocking the proximity effect of the microphone.

DIGITAL WIRELESS BODY PACK TRANSMITTER

ACT- 8T DIGITAL WIRELESS BODY PACK TRANSMITTER



Main Features:

1. Super-compact magnesium alloy housing protects the circuit board.
2. Separated antenna, toggle power switch and XLR input connector.
3. LCD displays channel / battery level / input SPL, error message, etc. on front panel.
4. Equipped with push buttons to set up different functions.
5. Lithium-Polymer (Li-Po) battery module can be removed from transmitter for charging. The transmitter can be used continuously for up to 8 hours. It is the most compact design as well as possessing the longest operating hours of any digital series of products.
6. Uniquely designed spring clip can attach the transmitter to clothing in any position including upside down according to the user's preference.
7. Second generation of the world's first ACT function rapidly and precisely sets up the transmitter frequency.

DIGITAL WIRELESS BODY PACK TRANSMITTER

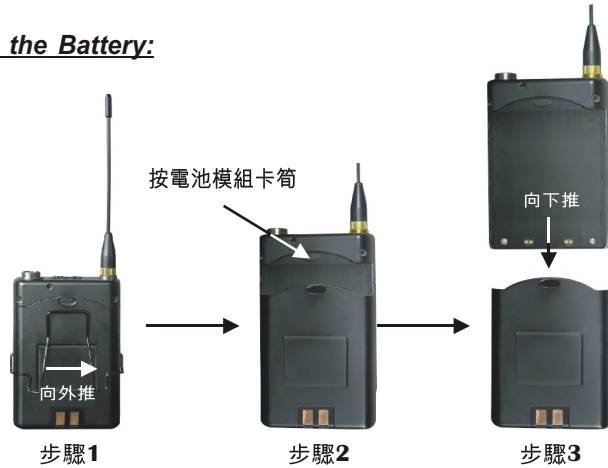
1. Part Names and Functions



1. AF Input: Connects with 5 different connectors (see reference 5, page 36).
2. Power Switch: Switch to "ON" position for operation; switch to "OFF" when not in use.
3. Transmitting Antenna: Detachable $1/4 \lambda$ antenna.
4. ACT Receptor: Signal reception via the ACT function; automatically programs the frequency and the encryption code from the receiver.
5. LCD display panel: Displays group, frequency, gain, battery level, input SPL and error messages.
6. SET: Parameter selection button.
7. MODE: Function selection button.
7. Transmitter Housing: Protects transmission PCB assembly, battery holder, LCD display and control switches.
8. Battery Module Wedge: To securely fix the battery module in place.
10. Lithium Battery: Lithium battery cartridge module is easy to pull out to charge separately or can be charged installed in the transmitter as well. It can be continuously operated up to 8 hours.
11. Belt clip: Special design of spring clip enables users to wear the transmitter in any position according to their own preference.
12. Battery Charging Contacts: For battery module charging.

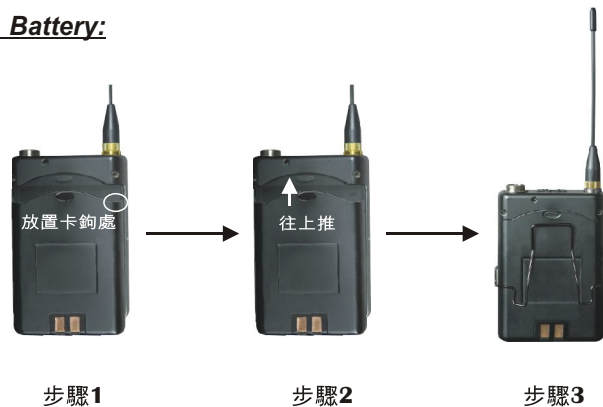
2. Battery Removals and Installation

Removing the Battery:



1. Push open the belt clip in the direction shown in step 1 to remove the belt clip.
2. Press the battery wedge (9) as shown in step 2, then push down as shown in step 3 to remove the lithium battery module.

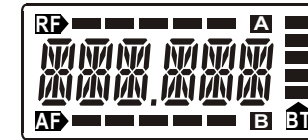
Replacing the Battery:



1. Hook the battery module in position as shown in step 1.
2. Push the battery module upwards until it locks into position as shown in step 2.
3. Push open the belt clip like step 1 on removing the battery. Then put the belt clip back as shown in step 3.

3. LCD Panel Functions

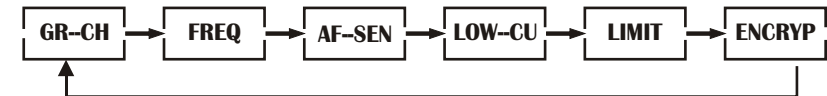
LCD 全亮顯示畫面及按鍵位置



Function Selection:

Mode Switch: To select from different menu

The LCD panel has 6 functions displayed sequentially; their respective descriptions and operations are as follows:



A. Operation Guide

1. Press MODE (7) to access the 6 different functions. Once a function is selected, it starts flashing on the screen. If parameter needs to be modified on selected function, press SET (8) to modify the value while the display is still flashing. Once done, leave it for 5 seconds until it stops flashing and the selection will be programmed into the transmitter.