MIPRO®

ACT-7Ha Wireless Microphone

User Guide

MIPRO Electronics Co., Ltd.
Headquarters: 814 Pei-Kang Road, Chiayi, 60096, Taiwan.
http://www.mipro.com.tw
E-mail: mipro@mipro.com.tw

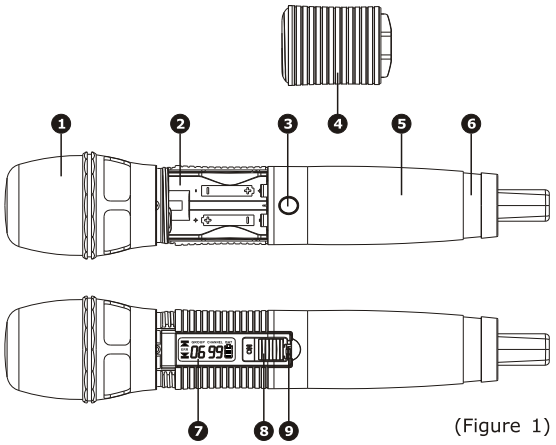
2CE359A

AS100615

KEY FEATURES:

- 36MHz bandwidth.
- Road-worthy, ergonomically-designed metal housing. Modularized PCB and microphone capsule for easy maintenance.
- Advanced efficient transmitting and low power consumption circuitry design provides long operating hours with only 2 AA alkaline or rechargeable RCR-V3 type lithium batteries.
- Patented windscreen grill design prevents accidental drop of the windscreen grill when it is detached from the housing.
- An optional MIPRO MP-7 battery charger can be used to charge the transmitter microphone after each use.
- High-quality MU-79b electret condenser microphone capsule with optional MU-89b true condenser or MU-39b dynamic microphone capsule. In addition to extremely low-touch noise, condenser exhibits high fidelity, wide dynamic range, fast transient responses, low feedback howling and accurate sound image characteristics.
- Hardened steel mesh grille and an integral pop filter minimize wind and breath "pop" noises.
- A locking protector can be set to "on" position after power-on to avoid accidental changes during performance.
- LCD panel displays working channel, battery meter status, and error codes.
- Integrated rugged antenna construction with matching multi-colored ID rings for easy channel differentiation.
- ACT channel synchronization setup.
- Maximum 140dB SPL is achieved by the proprietary high dynamic range modulation circuitry.

PART NAMES AND FUNCTIONS



(Figure 1)

❶ **Top Grille:** Protects detachable microphone capsule module and internal foam prevents breathing, wind and POP noises.

❷ **Battery Compartment:** Accommodates 2 AA alkaline or rechargeable RCR-V3 type lithium batteries (batteries not included).

❸ **ACT Infrared (IR) Port:** Receives signals from receiver to synchronize frequencies.

❹ **Battery Compartment Cover:** Protects battery compartment and holds batteries.

❺ **Housing:** Houses transmitter PCB and battery compartment.

❻ **Color-Coded Ring:** Available in different colors for channel differentiation.

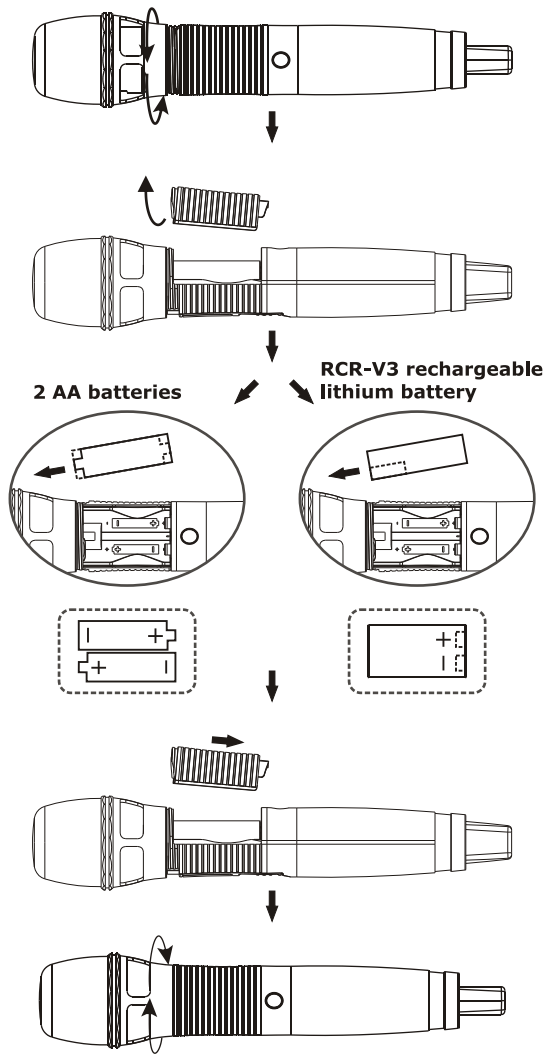
❼ **LCD Screen:** Displays group, channel, battery status and error codes.

❽ **Power On-off Switch:** Slide the power switch to the "ON" position for use or to the "OFF" position when not in use.

❾ **Power-On Locking Switch:** Slide the switch to the "ON" position after power-on to avoid accidental changes during performance. Slide the switch to "OFF" position before power-off and conserve battery power.

OPERATING INSTRUCTIONS FOR INSERTION & REMOVING BATTERY

1. Turn the top grill until it is loosen. Remove the battery compartment cover.
   Caution: Top grill will not detached completely from the housing. Do not exert excessive force to detach from the housing as it may be damaged.
2. Insert 2 AA or RCR-V3 rechargeable lithium battery (purchase separately) according to its correct polarity. Replace the battery compartment cover.
3. Ensure the battery is firmly covered by the battery compartment cover. Fasten it by turning the top grill until firmly in place. (see diagrams).
4. **Correct Battery Insertion:** parameters in LCD will appear after power-on with fresh battery.
   Incorrect Battery Insertion: parameters in LCD will not appear after power-on.
   Check for correct polarity (re-insert if incorrect).
   Drained battery (insert new, fresh battery).



CAUTION :

- If transmitter microphone will not be used for a long period of time, remove batteries to prevent damage or injury due to possible battery leakage
- The MIPRO MP-7 battery charger is designed to re-charge RCR-V3 rechargeable lithium battery ONLY. MP-7 will not re-charge AA batteries, thus, do not re-charge as such.

LCD SCREEN

- **ERR Message:** When "ERR" appears in the display it indicates that an operational error has occurred. Please refer to the following codes to diagnose which error you are experiencing.

ERR no01 EEPROM is not being programmed or internal data error.

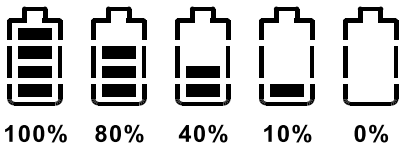
ERR no02 For testing only.

ERR no03 The frequency you want to program is above the switching bandwidth of the transmitter. Use a receiver with an appropriate frequency group. (At this time the microphone is still operating and the frequency remains unchanged. To clear the displayed "ERR" message, switch the handheld transmitter off and on again.)

ERR no04 The frequency you want to program is below the switching bandwidth of the transmitter. Use a receiver with an appropriate frequency group. (At this time the microphone is still operating and the frequency remains unchanged. To clear the displayed "ERR" message, switch the handheld transmitter off and on again.)

- **"Group" & "Channel" :** When both the group and channel numbers are displayed, it means that you are using the pre-programmed frequency of the receiver.
- **"Channel" Only :** If "Channel" only is displayed, it means that you are using a frequency which is not pre-programmed.

BATTERY STATUS



Indicates the power remaining in the transmitter battery. When the battery has less than 10% power remaining it must be replaced or recharged. If an under voltage condition continues, the LCD will show "Poff" and the system will shut down to prevent being overly discharged.

"Poff" - Power Off :

When the power switch is turned off, the LCD will show "Poff" (for Power Off) first and then the system will shut down and no further messages will be displayed.

CAUTIONS

1. The ACT-7Ha has an integrated antenna at the end of the rear housing Performer should avoid holding the microphone over or near the antenna section as this will deteriorate transmission efficiency. Severe transmission deterioration (short transmission range) will occur if performer directly covers up the antenna section with both hands.
2. Many performers tend to hold the microphone by the top grille. Unfortunately, this position seriously degrades both the sound quality and directionality of a microphone. Even the most expensive microphones 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.
3. 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.
4. 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.

FC

Notice :

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

IMPORTANT NOTE:

To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

Disposal

2008-08-13

Dispose of any unusable devices or batteries responsibly and in accordance with any applicable regulations.

Disposing of used batteries with domestic waste is to be avoided!

Batteries / NiCad cells often contain heavy metals such as cadmium(Cd), mercury(Hg) and lead(Pb) that makes them unsuitable for disposal with domestic waste. You may return spent batteries/ accumulators free of charge to recycling centres or anywhere else batteries/accumulators are sold.

By doing so, you contribute to the conservation of our environment!

THIS DEVICE COMPLIES WITH PART 74 OF THE FCC RULES AND RSS-123 Issue1 OF CANADA.

OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) This device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device. This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.