

MIPRO®

Handheld Transmitter Microphone

User Guide



ACT-31H
ACT-32H

ACT-30Hr
ACT-32HR

MIPRO®
MICROPHONE PROFESSIONALS

MIPRO Electronics Co., Ltd

Headquarters : 814 Pei-Kang Road, Chiayi, 60096, Taiwan
Tel : +886.5.238.0809 Fax : +886.5.238.0803
www.mipro.com.tw mipro@mipro.com.tw



2CE401F

All rights reserved. Do not copy or forward without prior approvals MIPRO.
Specifications and design subject to change without notice. MN 013/11

Contents

- 1 Key Features
- 3 Handheld Controls and Indicators
- 5 Operating Instructions for Insertion & Removing Battery
- 6 Operating Instructions
- 7 LCD Screen
- 8 Battery Status
- 9 General Tips for Improving System Performance

Key Features

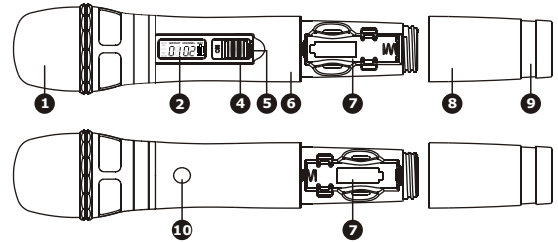
- Extremely rugged, ergonomically designed housing.
- The unique flat top multi-layered steel grille protects the capsule against impact, rolling, pop noise and ensures sound clarity.
- The unique flat top multi-layered steel grille for condenser capsules and round top for dynamic capsules protect the capsule against impact, rolling and pop noise. The upper grille is able to be detached easily for cleaning and hygiene practices.
- Premium true condenser microphone capsule provides high fidelity, wide frequency response, high dynamic range, rapid transient response, clarity and accurate sound reproduction.
- Proprietary lockable silent on/off switch to avoid accidental power-off during performance.
- Impact-resistant battery compartment holds 2 AA batteries.
- Interchangeable colored rings for microphone channel identification on stage.
- LCD displays group, channel, battery level & error message codes.
- Low spurious PLL-synthesized technology enhances frequency stability and reliability. Patented "Built-in" antenna design.
- World's first ACT™ function provides precise and rapid frequency sync to the transmitters.

Key Features

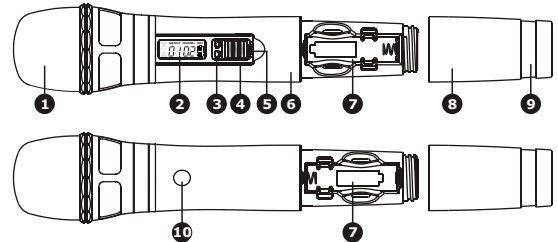
- Industry's only digital master control can be adjusted manually or wireless via new ACT-30Hr /ACT-32HR handheld transmitter microphone. (for MA-505, MA-708 & MA-808 portables)

Handheld Controls and Indicators

ACT-30H/ACT-32H



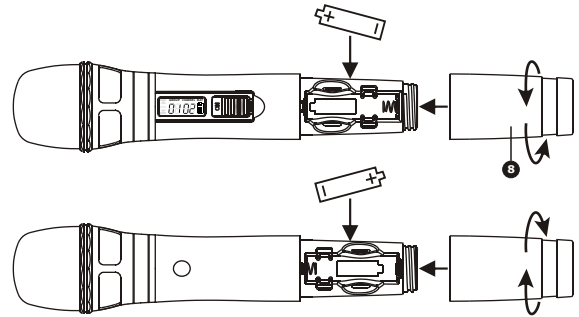
ACT-30Hr/ACT-32HR



- Top Grille:** Protects detachable microphone capsule module and internal foam prevents breathing, wind and POP noises.
- LCD Screen:** Displays group, channel, battery status and error codes.
- Remote Volume Control Buttons:** Press ▼ to decrease or ▲ to increase volume loudness wirelessly.
- Power On/Off Switch:** Slide the power switch to the "ON" position for use or to the "OFF" position when not in use.

- ⑤ **Lockable On/Off Switch:** Slide the switch to the "ON" position after power-on to avoid accidental power off during performance. Slide the switch to "OFF" position before power-off and conserve battery power.
- ⑥ **Housing:** Upper portion connects to the microphone capsule module. Internally it holds the transmitter PCB and battery compartment.
- ⑦ **Battery Compartment:** Accommodates 2 AA alkaline.
- ⑧ **Battery Compartment Cover:** Protects battery compartment and holds batteries.
- ⑨ **Color-Coded Ring:** Available in different colors for channel differentiation.
- ⑩ **ACT Infrared (IR) Port:** Receives signals from receiver to synchronize frequencies.

Operating Instructions for Insertion & Removing Battery



1. Gently twist the microphone housing in a counter-clockwise direction
2. Remove the old batteries from the battery compartment, if any are installed.
3. Insert two new AA alkaline batteries in the battery compartment with correct polarity orientation.

Operating Instructions

1. LCD screen on the transmitter and the RF level/indicator shown on the receiver will be lit when the microphone is turned-on, denoting normal status. A blank LCD screen maybe due to an incorrect battery polarity orientation.
2. The audio level or indicator show on the receiver will be lit when there is audio line or microphone input from the transmitter.

Caution

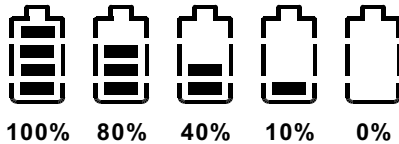
Remove the batteries if unused for a long period of time to prevent battery leakage, corrosion and causes damage to electronics.

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.

General Tips for Improving System Performance

1. Performer should avoid holding the microphone over or near the antenna section as this will deteriorate transmission efficiency. Severe deterioration 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. RF, 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.



& IC - ID

THIS DEVICE COMPLIES WITH PART 15 & 74 OF THE FCC RULES AND RSS-123 ISSUE 2, RSS-210 ISSUE 8 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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio

exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Disposal



2005-06-13

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 centers or anywhere else batteries/accumulators are sold.

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

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 & 74 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- . Reorient or relocate the receiving antenna.
- . Increase the separation between the equipment and receiver.
- . Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- . Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).