

## ICOM HM228

# Icom HM228 Compact IPX7 Waterproof Speaker Microphone User Manual

Model: HM228

## INTRODUCTION

This user manual provides detailed instructions for the proper use, maintenance, and troubleshooting of your Icom HM228 Compact IPX7 Waterproof Speaker Microphone. Designed for seamless integration with the Icom M93D marine handheld VHF radio, this accessory enhances communication capabilities in various environments, including wet conditions, thanks to its IPX7 waterproof rating.

Please read this manual thoroughly before operating the device to ensure safe and efficient performance.

## PRODUCT OVERVIEW

### Key Features

- **Compact Design:** Ergonomically designed for comfortable handling and portability.
- **IPX7 Waterproof Rating:** Submersible in 1 meter of water for 30 minutes, ensuring reliable operation in marine or wet conditions.
- **Integrated Speaker and Microphone:** Provides clear audio transmission and reception.
- **Durable Construction:** Built with robust plastic material for longevity.
- **Coiled Cable:** Offers flexibility and prevents tangling during use.

### Components

The Icom HM228 Speaker Microphone consists of the following main components:

- **Speaker Grille:** For audio output.
- **Microphone:** For voice input.
- **PTT (Push-To-Talk) Button:** Located on the side for transmitting.
- **Coiled Cable:** Connects the speaker microphone to the radio.
- **Audio Connector:** 3.5mm jack for connection to compatible Icom radios (e.g., M93D).



**Figure 1:** The Icom HM228 Compact IPX7 Waterproof Speaker Microphone. This image displays the black speaker microphone unit with its coiled cable and 3.5mm audio jack connector. The Icom logo and "HM-228" model number are visible on the front of the unit.

## SETUP

1. **Ensure Radio is Off:** Before connecting the speaker microphone, ensure your Icom M93D radio (or compatible model) is powered off.
2. **Locate Audio Jack:** Identify the external speaker/microphone jack on your radio. Refer to your radio's user manual for its exact location.
3. **Connect Speaker Microphone:** Carefully insert the 3.5mm audio connector of the HM228 into the radio's corresponding jack. Ensure it is fully seated to establish a secure connection.
4. **Secure Connection (if applicable):** Some radios may have a screw-in collar or clip to further secure the connection. If present, engage this mechanism.

5. **Power On Radio:** Once connected, you may power on your radio. The audio output should now be routed through the HM228's speaker, and the microphone will be active for transmission.

*Note:* Always ensure the connection is clean and free of debris, especially when operating in wet environments, to maintain the IPX7 waterproof integrity.

## OPERATING INSTRUCTIONS

### Receiving Audio

When the HM228 is connected, incoming audio from your radio will be played through the speaker on the HM228. Adjust the radio's volume control to your desired listening level.

### Transmitting (Push-To-Talk)

1. **Select Channel:** Ensure your radio is set to the desired transmit channel.
2. **Hold Microphone Correctly:** Hold the HM228 approximately 2-5 cm (1-2 inches) from your mouth.
3. **Press PTT Button:** Press and hold the PTT (Push-To-Talk) button located on the side of the HM228. The radio's transmit indicator should illuminate.
4. **Speak Clearly:** Speak clearly and at a normal volume into the microphone.
5. **Release PTT Button:** Release the PTT button when you have finished speaking to return to receive mode.

*Important:* Do not block the microphone port during transmission. Ensure the PTT button is fully released when not transmitting to avoid accidental transmissions and to allow reception of incoming calls.

## MAINTENANCE AND CARE

- **Cleaning:**  
Wipe the exterior of the HM228 with a soft, damp cloth. For stubborn dirt, a mild soap solution can be used. Do not use harsh chemicals, solvents, or abrasive cleaners, as these can damage the plastic and seals.
- **Drying:**  
After exposure to water, especially saltwater, rinse the unit with fresh water and dry thoroughly with a clean, soft cloth. Ensure the connector is completely dry before reattaching to the radio.
- **Storage:**  
Store the speaker microphone in a cool, dry place away from direct sunlight and extreme temperatures. Avoid kinking or excessively bending the coiled cable.
- **Waterproof Integrity:**  
While the HM228 is IPX7 waterproof, avoid unnecessary submersion. Regularly inspect the cable and connector for any signs of damage that could compromise its waterproof capabilities.

## TROUBLESHOOTING

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
No audio from speaker.	Radio volume too low. HM228 not fully connected. Radio's internal speaker still active.	Increase radio volume. Ensure connector is fully seated. Check radio settings to ensure external speaker is enabled.
Cannot transmit (PTT not working).	HM228 not fully connected. Radio is off or in receive-only mode. PTT button malfunction.	Ensure connector is fully seated. Check radio power and mode. Contact Icom support if PTT button is unresponsive.
Distorted or unclear audio.	Microphone too far/close. Connector not clean. Environmental interference.	Adjust microphone distance. Clean the connector. Move away from sources of interference.

If the problem persists after attempting these solutions, please contact Icom customer support or an authorized service center.

## SPECIFICATIONS

Attribute	Value
Model Number	HM228
Brand	ICOM
Waterproof Rating	IPX7 (Submersible in 1 meter of water for 30 minutes)
Material	Plastic
Connectivity Technology	XLR
Connector Type	XLR
Item Weight	1 Pounds (approx. 0.45 kg)
Signal-to-Noise Ratio	76 dB
Polar Pattern	Unidirectional
Included Components	Microphone
UPC	731797024831

*Note:* Specifications are subject to change without notice. For the most current information, please refer to the official Icom product page.

## WARRANTY AND SUPPORT

Icom products are manufactured to high-quality standards. For information regarding the warranty period and terms for your HM228 Speaker Microphone, please refer to the warranty card included with your purchase or visit the official Icom website.

For technical support, service, or inquiries about replacement parts, please contact Icom customer service through their

official website or the contact information provided in your product packaging.

**Icom Official Website:** [www.icomamerica.com](http://www.icomamerica.com)