

## MICROSEVEN M7WP-MIC

# MICROSEVEN M7WP-MIC Waterproof Outdoor Microphone User Manual

Model: M7WP-MIC

## 1. PRODUCT OVERVIEW

The MICROSEVEN M7WP-MIC is a durable, waterproof external microphone designed for use with IP network surveillance cameras and PTZ IP cameras that feature an audio interface. This microphone is engineered for outdoor environments, providing high-quality audio capture to complement your video surveillance system. Its robust metal construction ensures longevity and reliable performance in various weather conditions.



Figure 1: MICROSEVEN M7WP-MIC Waterproof Outdoor Microphone

This image displays the compact, cylindrical design of the M7WP-MIC microphone, highlighting its silver metal casing and the attached cable with connectors. The microphone is shown with its associated power and audio cables, ready for connection to a compatible camera system.

## 2. KEY FEATURES

- **Outdoor Waterproof Design:** Engineered to withstand various weather conditions, suitable for continuous outdoor use.
- **Wide Compatibility:** Designed for M7B77-POE, M7B57-WPS, M7B77-W, M7D77-POE, and any IP Network Surveillance Camera & PTZ IP Camera with an audio interface.
- **High Sensitivity:** Features a customized omnidirectional capacitor microphone with a sensitivity of -47dB, capable of capturing subtle sounds.
- **Wide Frequency Response:** Covers a frequency range of 20Hz to 20kHz, ensuring clear and comprehensive audio capture.
- **Noise Reduction:** Incorporates built-in digital voice processing circuits and a micro-processing chip for automatic suppression of high-intensity sound, enhancing audio clarity.
- **Integrated Preamplifier:** Professional built-in preamplifier circuit allows direct connection to active speakers, hard disk recorders, and tape recorders.
- **Extensive Coverage:** Effective listening area of 108 sq ft to 375 sq ft (10 to 35 square meters) with an audio transmission distance of up to 3000 meters.
- **Durable Construction:** Features a metal shell for enhanced durability and a pinhole design for hidden installation.
- **Protection Features:** Includes built-in lightning protection and power supply polarity reversal protection.

### 3. SETUP AND INSTALLATION

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Proper installation is crucial for optimal performance of your M7WP-MIC microphone. Follow these steps carefully:

1. **Compatibility Check:** Ensure your IP camera or PTZ camera has a dedicated audio input interface (typically RCA). The microphone is designed to work with cameras that support an audio input.
2. **Power Supply:** The M7WP-MIC requires an external 12V DC power supply (not included). For optimal performance, especially over longer cable runs, a power supply greater than 500mA (e.g., 15V) is recommended.
3. **Connecting the Microphone:**
  - Connect the RCA audio output from the microphone to the audio input of your camera. An RCA male-to-male adapter barrel is included for this purpose.
  - Connect the power input of the microphone to your 12V DC power supply.
4. **Cable Type:** Standard four-core telephone wire, Category 5 network twisted pair, or shielded cable can be used for transmission. For environments with complex electromagnetic interference, a shielded cable is recommended.
5. **Mounting:** The microphone features a bracket with holes for secure attachment to a surface. Mount the microphone in a location that provides optimal sound capture for your surveillance area, ideally protected from direct heavy rainfall if possible, despite its waterproof rating.
6. **Analog/Digital Receivers:**
  - If your receiver is analog, an amplifier box is required to hear audio through a speaker.
  - If your receiver is digital, an analog-to-digital converter may be necessary.

# YOU WILL NEED 12V DC POWER SUPPLY TO OPERATE THIS MICROPHONE!!!

## POWER SUPPLY NOT INCLUDE!!!



Figure 2: Component Diagram and Connections

This diagram illustrates the various components of the M7WP-MIC, including the microphone unit, metal case, mic bracket, RCA audio connector, 12V DC power input (red), male connector, male connector to mic power (red), female connector, and the RCA coupler (male to male). Cable lengths are also indicated.


 Model	Camera Features (Daylight & Night vision)										
	SONY COMS	1080p	WiFi	POE	microSD Drive	Built-in MIC	2-Way Audio	HLS Stream	CVR (Cloud Record) Free	ONVIF	Vari-focal
M7B77-WPS	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
M7B77-WS		✓	✓		✓	✓	✓	✓	✓	✓	
M7B77-SWS	✓	✓	✓		✓	✓	✓	✓	✓	✓	
M7B77-W		✓	✓				✓	✓	✓	✓	
M7B77-POE		✓		✓			✓	✓	✓	✓	
M7D77-POE		✓		✓			✓	✓	✓	✓	
M7B77-WPSV	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M7B77-WPSV1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M7B57-WPS			✓	✓	✓	✓	✓	✓	✓	✓	
M7B37-W			✓					✓	✓	✓	

Figure 3: Power Supply Requirement

This image serves as a reminder that a 12V DC power supply is required for the microphone to operate and is not included with the product.



Figure 4: Microseven Camera Compatibility

This table provides a compatibility overview for various Microseven camera models, indicating features such as SONY COMS, 1080p, WiFi, POE, microSD Drive, Built-in MIC, 2-Way Audio, HLS Stream, CVR (Cloud Record), ONVIF, and Varifocal capabilities. This helps users identify if their Microseven camera is suitable for external microphone integration.

## 4. OPERATING INSTRUCTIONS

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Once the M7WP-MIC is correctly installed and powered, its operation is integrated with your connected surveillance camera system.

- **Audio Monitoring:** Access the audio feed through your camera's viewing software or NVR (Network Video Recorder) interface. Most IP camera software allows for live audio monitoring and recording.
- **Recording:** Ensure your camera's recording settings are configured to include audio. The microphone will capture sounds within its effective listening area, which will be synchronized with the video feed.
- **Remote Access:** If your camera system supports remote access, you can listen to the audio from the microphone via your phone or computer, allowing for real-time environmental sound monitoring.

## 5. MAINTENANCE

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The M7WP-MIC is designed for minimal maintenance due to its durable, waterproof construction. However, periodic checks can ensure continued optimal performance:

- **Physical Inspection:** Periodically inspect the microphone unit and its cables for any visible signs of wear, damage, or corrosion.
- **Cleanliness:** Gently clean the microphone's pinhole opening if any debris or dirt accumulates, ensuring it remains unobstructed for clear audio capture. Use a soft, dry cloth.
- **Connection Integrity:** Verify that all cable connections (RCA, power) remain secure and free from moisture or damage.

## 6. TROUBLESHOOTING

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If you encounter issues with your M7WP-MIC microphone, consider the following troubleshooting steps:

- **No Audio Output:**
  - Ensure the 12V DC power supply is connected and functioning correctly.

- Verify that the camera's audio input is properly connected to the microphone's RCA output.
  - Check your camera's software settings to ensure audio input is enabled and the volume is not muted or set too low.
  - Confirm your camera model has an audio input interface.
- **Poor Audio Quality (Static, Distortion, Low Volume):**
    - The quality of the audio output can often be limited by the connected camera's audio input circuitry. Some cameras may have a narrow audio bandwidth, affecting fidelity.
    - Ensure the power supply provides sufficient current (e.g., >500mA for 15V if using longer cables).
    - Check for electromagnetic interference. Using a shielded cable can help in noisy environments.
    - Verify the microphone's pinhole is clean and unobstructed.
    - If using an analog receiver, confirm an amplifier box is in place. If digital, ensure an analog-to-digital converter is used if necessary.
  - **Intermittent Audio:**
    - Inspect all cable connections for looseness or damage.
    - Check for power fluctuations.

## 7. SPECIFICATIONS

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Specification	Value
Model Name	M7WP-MIC
Brand	MICROSEVEN
Microphone Form Factor	Boundary
Polar Pattern	Omnidirectional
Audio Sensitivity	-47dB (from A+ content)
Signal-to-Noise Ratio	50dB (40 dB sound source 1 meter) / 30dB (10 meters 40 dB sources) 1KHz at 1 Pa (from A+ content)
Frequency Response	20Hz ~ 20kHz
Dynamic Range	80dB (1KHz at Max dB SPL)
Maximum Sound Pressure	120dB SPL (1KHz, THD 1%)
Output Impedance	600 ohms non-equilibrium
Output Signal Amplitude	2.5Vpp/-25db
Listening Area	108 sqft - 375 sqft (10 - 35 square meters)
Audio Transmission Distance	3000 m
Power Source	Corded Electric (External 8V-20V DC, recommended 12V)
Supply Current	17 mA

Specification	Value
Operating Temperature	-13°F ~ 158°F (-25°C ~ 70°C)
Shell Material	Metal
Dimensions (L x D)	2.5 in x 0.75 in (6.35 cm x 1.9 cm)
Item Weight	1.8 OZ (51 grams)
Included Components	Amplifier (integrated)

*Note: Some specifications are derived from the A+ content for more detail.*

## 8. WARRANTY AND SUPPORT

For specific warranty information regarding the M7WP-MIC microphone, please refer to the documentation provided with your purchase or contact MICROSEVEN customer support directly. Warranty terms may vary. MICROSEVEN also offers cloud storage and free live streaming for all Microseven IP Cameras, which can enhance the functionality of your surveillance system when paired with this microphone. For further assistance or to explore other MICROSEVEN products, visit the official [MICROSEVEN Store](#).

