

## Motorola Solutions PMMN4136B

# Motorola Solutions PMMN4136B Xtreme Voice Plus XVP 830 Remote Speaker Microphone User Manual

Model: PMMN4136B

## INTRODUCTION

The Motorola Solutions PMMN4136B Xtreme Voice Plus (XVP) 830 Remote Speaker Microphone (RSM) is designed to provide superior audio clarity and robust performance for critical communication environments. Featuring advanced noise suppression, four HDR microphones, and intrinsically safe certification, this RSM ensures reliable communication even in challenging conditions. This manual provides essential information for the proper setup, operation, maintenance, and troubleshooting of your PMMN4136B RSM.

## SAFETY INFORMATION

Always read and understand all safety instructions before using the PMMN4136B RSM. This device is **Intrinsically Safe, Div 1 certified**, meaning it is designed to be incapable of releasing sufficient electrical or thermal energy to cause ignition of flammable or combustible atmospheric mixtures. Ensure the RSM is used only with compatible, certified radios in hazardous environments. Do not attempt to modify or repair the unit yourself, as this may compromise its intrinsic safety rating and void the warranty. Keep the device away from extreme temperatures, direct sunlight, and moisture.

## SETUP

### 1. Connecting the RSM to Your Radio

1. Ensure your radio is powered off before connecting the RSM.
2. Align the connector of the PMMN4136B RSM with the accessory port on your compatible radio (e.g., APX NEXT, APX6000, APX8000).
3. Gently push the connector into the port until it clicks securely into place. Do not force the connection.
4. Once connected, you may power on your radio. The radio should recognize the RSM automatically.

### 2. Compatibility

The PMMN4136B RSM is designed for APX NEXT radios. It is also backwards compatible with APX6000 and APX8000 radios that have updated firmware R24.00.00 and beyond. Verify your radio's firmware version for optimal performance.



Image: The PMMN4136B Remote Speaker Microphone connected to a compatible two-way radio, showing its robust design and connection point.

## OPERATING INSTRUCTIONS

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### 1. Basic Operation

- **Push-to-Talk (PTT) Button:** Located on the side of the RSM. Press and hold to transmit your voice. Release to listen.
- **Volume Control:** Use the volume up/down buttons (P1/P2 or dedicated buttons depending on radio configuration) on the RSM or the radio to adjust the speaker volume.
- **Speaker:** Audio from the radio will be routed through the RSM's integrated speaker.

### 2. Advanced Features

- **ViQi Button:** The dedicated ViQi button allows for quick and easy voice-activated commands with compatible APX NEXT radios. Refer to your APX NEXT radio manual for specific ViQi commands.
- **Adaptive Noise Cancellation:** The RSM utilizes 4 digital microphones and adaptive noise cancellation technology to reduce background noise and enhance voice clarity. Speak clearly and directly into the microphone for best results.
- **Windporting Microphone:** Designed to minimize wind noise interference in outdoor environments.

### 3. Using the Clip

The RSM features a 360-degree rotating clip with a D-ring, allowing you to securely attach it to your uniform, vest, or belt for convenient access and optimal microphone positioning. Adjust the clip to ensure the microphone is positioned near your mouth for clear transmission.



Image: An individual wearing the Remote Speaker Microphone clipped to a tactical vest, demonstrating practical use in an operational setting.

## MAINTENANCE

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### 1. Cleaning

- Wipe the exterior of the RSM with a soft, damp cloth.
- Do not use harsh chemicals, solvents, or abrasive cleaners.
- Ensure the RSM is completely dry before connecting it to a radio or storing it.

### 2. Storage

Store the RSM in a cool, dry place away from direct sunlight and extreme temperatures. Avoid placing heavy objects on the RSM or its cable to prevent damage.

## TROUBLESHOOTING

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- **No Audio from RSM:**
  - Ensure the RSM is securely connected to the radio.

- Check the radio's volume level and the RSM's volume.
- Verify the radio's settings to ensure audio is routed to the external accessory.
- Power cycle the radio with the RSM connected.
- **Poor Audio Clarity / Excessive Noise:**
  - Ensure the microphone is positioned correctly, close to your mouth.
  - Check for any obstructions covering the microphone ports.
  - Confirm your radio's firmware is up to date for optimal noise cancellation performance.
  - Test in a quieter environment to isolate the issue.
- **PTT Button Not Responding:**
  - Ensure the RSM is fully connected.
  - Power cycle the radio.
  - Check radio settings for PTT button assignments.

If issues persist after attempting these troubleshooting steps, please contact Motorola Solutions customer support.

## SPECIFICATIONS

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# XVP RSM SPECIFICATIONS

GENERAL	
XVP850 Part Number with Channel Knob	PMMN4135
XVP830 Part Number without Channel Knob	PMMN4136
Dimensions (RSM Head only)	3.66 x 2.27 x 1.21 in (93 x 58 x 31 mm)
Weight (Total Kit)	PMMN4135: 10.05 oz. (285 g) PMMN4136: 10.23 (290 g)
Clip	360° Rotating Clip with D-Ring
Color	Black
Power Source	Radio Battery
Secondary Accessory Interfaces	3.5 mm Non-threaded
Intrinsically Safe	<b>Div 1</b> Class I (Groups C, D), Class II (Groups E, F, G), Class III <b>Div 2</b> Class I (Groups A, B, C, D), Class II (Groups F, G) Class III
Power Source	Radio Battery
MICROPHONE	
Type	Beam Forming
Sensitivity	-42dBV Typical
Distortion (THD)	<5% wideband
IMPRES™	Yes
Noise Cancellation	4 Microphone Adaptive Noise Suppression Algorithm
Windporting Microphone	Yes
Adaptive Audio Engine	Enabled through radio*
SPEAKER	
Diameter	1.9in (47 mm)
Speech Loudness @12 in (300mm)	105 Phon**
Distortion (THD)	<15%
CONTROLS	
Top	Orange Emergency, Volume up/down, channel control (PMMN4135A only)
Side	PTT, 2 Programmable (1-dot, 2-dot)
Front	1 Programmable (3-dot ViQi)

CABLE	
Length	11 in (280 mm) Coiled Length
Flex Life	100k Cycles Minimum
Pull Strength	40 lbs (18.14 kg) Minimum
Cable Jacket	Thermoplastic Elastomer (TPE)
ENVIRONMENTAL	
Operating Temperature	-30°C to +60°C (-22°F to +140°F)
Storage Temperature	-55°C to +85°C (-67°F to +185°F)
Mil Specs	MIL810H Method 506.4 (Rain), MIL810H Method 509.4 Procedure 1 (Salt Fog), MIL810H Method 510.4 Procedure 1 (Dust), MIL810H Method 514.5 Procedure 1 Category 24 (Vibration), MIL810H Method 516.5 Procedure 1 (Vibration)
ESD	IEC / EN 61000-4-2
IP Rating	IP68 (2 meters, 4 hours)
Impact Grill	1.25 in (31.75 mm) Diameter Steel Ball Drop
Work-When-Wet	Yes
SECOND AUDIO ACCESSORY	
Kit Number	Description
PMLN8120	3.5mm Xtra Loud Receive Only Earpiece with Translucent Tube
REPLACEMENT PART	
Kit Number	Description
PMLN8312	Low profile swivel clip with D-ring
PMLN8313	Channel Knob
PMLN4260	Coil Cord
COMPATIBLE RADIOS	
APX 6000, APX 6000XE, APX 8000, APX 8000XE, APX 8000H, APX 8000HXE, SRX 2200, APX NEXT, APX NEXT XE	
COMPATIBLE RADIO FIRMWARE	
APX Radios : R24.00.00 and beyond APX NEXT Radios: R03.20.00 and beyond	
* For more information on APX accessories, please visit: <a href="http://www.motorolasolutions.com/apx">www.motorolasolutions.com/apx</a> ** RSM loudness with legacy APX 6000 (AN) and SRX 2200 (AN) model is 101 Phon.	

Image: Detailed table outlining the general, cable, environmental, microphone, speaker, controls, second audio accessory, replacement part, and compatible radio specifications for the XVP RSM.

For detailed specifications, refer to the image above. Key specifications include:

- **Model:** PMMN4136B (with cable)
- **Dimensions (RSM Head only):** 3.66 x 2.27 x 1.21 in. (93 x 58 x 31 mm)
- **Weight (Total Kit):** PMMN4136: 10.05 oz. (285 g)
- **Clip:** 360° Rotating Clip with D-Ring

- **Color:** Black
- **Power Source:** Radio Battery
- **Intrinsically Safe:** Div 1 Class I (Groups C, F, G), Class II (Groups E, F, G), Class III; Div 2 Class I (Groups A, B, C, D), Class II (Groups F, G), Class III
- **Noise Cancellation:** 4 Microphone Adaptive Noise Suppression Algorithm
- **IP Rating:** IP68 (2 meters, 4 hours)
- **Compatible Devices:** APX NEXT, APX6000, APX8000 (with updated firmware)

## WARRANTY INFORMATION

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The Motorola Solutions PMMN4136B Xtreme Voice Plus XVP 830 Remote Speaker Microphone comes with a **2 Year Manufacturer Warranty**. Please retain your proof of purchase for warranty claims. For full terms and conditions of the warranty, refer to the warranty card included with your product or visit the official Motorola Solutions website.

## SUPPORT

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For further assistance, technical support, or to inquire about service and repairs, please visit the official Motorola Solutions support website or contact their customer service department. You can find contact information and resources at [www.motorolasolutions.com/support](http://www.motorolasolutions.com/support).

