



# Remote Speaker Microphone (RSM) with 2.5 mm Connector PMMN4125\_ Installation Guide

**OCTOBER 2019**

© 2019 Motorola Solutions, Inc. All rights reserved



MN005686A01-AB

# Contents

<b>List of Figures</b> .....	<b>3</b>
<b>List of Tables</b> .....	<b>4</b>
<b>Copyrights</b> .....	<b>5</b>
<b>Document History</b> .....	<b>6</b>
<b>Foreword</b> .....	<b>7</b>
Acoustic Safety.....	7
<b>Chapter 1: Service and Warranty</b> .....	<b>8</b>
Warranty Exclusion.....	8
<b>Chapter 2: Important Information</b> .....	<b>9</b>
<b>Chapter 3: RSM Compatibility</b> .....	<b>10</b>
<b>Chapter 4: Remote Speaker Microphone (RSM) Features</b> .....	<b>11</b>
<b>Chapter 5: Charging the Battery</b> .....	<b>12</b>
<b>Chapter 6: Maintenance</b> .....	<b>13</b>
Recommended RSM Wearing, Transmitting, and Receiving Positions.....	13
Recommended Practice.....	14
Attaching the RSM to the Radio.....	14
Detaching the RSM from the Radio.....	15
Replacing the Coil Cord.....	15
Replacing the Battery.....	18
<b>Chapter 7: Optional Accessories</b> .....	<b>22</b>
<b>Chapter 8: Replacement Parts</b> .....	<b>23</b>

# List of Figures

Figure 1: Wearing.....	13
Figure 2: Transmitting.....	13
Figure 3: Receiving.....	14
Figure 4: Recommended Practice.....	14
Figure 5: Attaching the Connector.....	14
Figure 6: Rotating the Connector.....	15
Figure 7: Detaching the Connector.....	15
Figure 8: Unscrewing the Back Housing.....	16
Figure 9: Unscrewing the Battery Tray.....	16
Figure 10: Disconnecting the Cable Connector.....	16
Figure 11: Removing the Cable.....	17
Figure 12: Cable Orientation.....	17
Figure 13: Attaching the Cable Connector.....	17
Figure 14: Reassembling the Battery Tray.....	18
Figure 15: Reassembling the Back Housing.....	18
Figure 16: Unscrewing the Back Housing.....	19
Figure 17: Removing the Battery.....	19
Figure 18: Inserting the Battery.....	20
Figure 19: Securing the Battery.....	20
Figure 20: Reassembling the Back Housing.....	21

# List of Tables

Table 1: RSM Features.....	11
Table 2: Charging Indicator Behavior.....	12
Table 3: Replacement Parts.....	23

# Copyrights

The Motorola Solutions products described in this document may include copyrighted Motorola Solutions computer programs. Laws in the United States and other countries preserve for Motorola Solutions certain exclusive rights for copyrighted computer programs. Accordingly, any copyrighted Motorola Solutions computer programs contained in the Motorola Solutions products described in this document may not be copied or reproduced in any manner without the express written permission of Motorola Solutions.

© 2019 Motorola Solutions, Inc. All Rights Reserved

No part of this document may be reproduced, transmitted, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, without the prior written permission of Motorola Solutions, Inc.

Furthermore, the purchase of Motorola Solutions products shall not be deemed to grant either directly or by implication, estoppel or otherwise, any license under the copyrights, patents or patent applications of Motorola Solutions, except for the normal non-exclusive, royalty-free license to use that arises by operation of law in the sale of a product.

## Disclaimer

Please note that certain features, facilities, and capabilities described in this document may not be applicable to or licensed for use on a specific system, or may be dependent upon the characteristics of a specific mobile subscriber unit or configuration of certain parameters. Please refer to your Motorola Solutions contact for further information.

## Trademarks

MOTOROLA, MOTO, MOTOROLA SOLUTIONS, and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. All other trademarks are the property of their respective owners.

## European Union (EU) Waste of Electrical and Electronic Equipment (WEEE) directive



■ The European Union's WEEE directive requires that products sold into EU countries must have the crossed out trash bin label on the product (or the package in some cases).

As defined by the WEEE directive, this cross-out trash bin label means that customers and end-users in EU countries should not dispose of electronic and electrical equipment or accessories in household waste.

Customers or end-users in EU countries should contact their local equipment supplier representative or service centre for information about the waste collection system in their country.

## Document History

Version	Description	Date
MN005686A01-AA	Initial release of the <i>WM500 Remote Speaker Microphone (RSM) PMMN4127_Online Installation Guide</i> manual.	April 2019
MN005686A01-AB	Change "SL7000e, SL300, and SL3500e" to SL Series and "TLK 100, TLK 100i, and TLK 100j" to TLK Series.	October 2019

# Foreword

## RF Energy Exposure and Product Safety Guide for Portable Two-Way Radios



**CAUTION:** Before using this product, read the operating instructions for safe usage contained in the Product Safety and RF Exposure booklet enclosed with your radio which contains important operating instructions for safe usage and RF energy awareness and control for Compliance with applicable Standards and Regulations.

## Acoustic Safety

Exposure to loud noises from any source for extended periods of time may temporarily or permanently affect your hearing. The louder the radio's volume, the less time is required before your hearing could be affected. Hearing damage from loud noise is sometimes undetectable at first and can have a cumulative effect. To protect your hearing:

- Use the lowest volume necessary to do your job.
- Turn up the volume only if you are in noisy surroundings.
- Turn down the volume before adding headset or earpiece.
- Limit the amount of time you use headsets or earpieces at high volume.
- When using the radio without a headset or earpiece, do not place the radio's speaker directly against your ear.
- If you experience hearing discomfort, ringing in your ears, or speeches that are muffled, you should stop listening to your radio through your headset or earpiece, and have your hearing checked by your doctor.

## Chapter 1

# Service and Warranty

Other than the clip, the PMMN4125 Remote Speaker Microphone (RSM) is not repairable. The RSM is covered under the standard Motorola Solutions one-year limited warranty.

## Warranty Exclusion

Motorola Solutions does not warrant the installation, maintenance or service of the Product, accessories, batteries, or parts.

Motorola Solutions is not responsible in any way for problems or damage caused by any ancillary equipment or peripherals (specific examples include, but are not limited to: batteries, chargers, adapters, and power supplies) not furnished or manufactured by Motorola Solutions which is attached to or used with the Product. When the Product is used with ancillary or peripheral equipment not supplied by Motorola Solutions, Motorola Solutions does not warrant the operation of the Product/peripheral combination and Motorola Solutions will not honor any warranty claim where the Product is used in such a combination and it is determined by Motorola Solutions that there is no fault with the Product. Upon open or dismantle the Product, the warranty is immediately voided. Motorola Solutions specifically disclaim any responsibility for any damage in any way caused by improper installation by unauthorized personnel.

## Chapter 2

# Important Information

- Do not charge your accessory in temperature below 0°C (32°F) or above 45°C (113°F).
- Do not store your accessory in direct sunlight or where expected temperatures can exceed below 0°C (32°F) or above 45°C (113°F) such as inside a parked car.
- Storing your fully charged accessory in high temperature conditions may permanently reduce the life of the internal battery.
- Battery life may temporarily shorten in low-temperature conditions.
- RSM should be stored in temperatures between -10°C (14°F) and 30°C (86°F) to minimize permanent battery capacity loss.



**WARNING:**

- To prevent injury, do not disassemble, puncture, or crush the RSM because this action can cause the battery to short-circuit.
- Do not expose or throw the RSM into heat or fire.
- Do not dispose the RSM into household waste.

## Chapter 3

# RSM Compatibility

List of radio(s) or device(s) that are compatible to PMMN4125:

- SL Series
- SLN1000
- TLK Series

Chapter 4

# Remote Speaker Microphone (RSM) Features

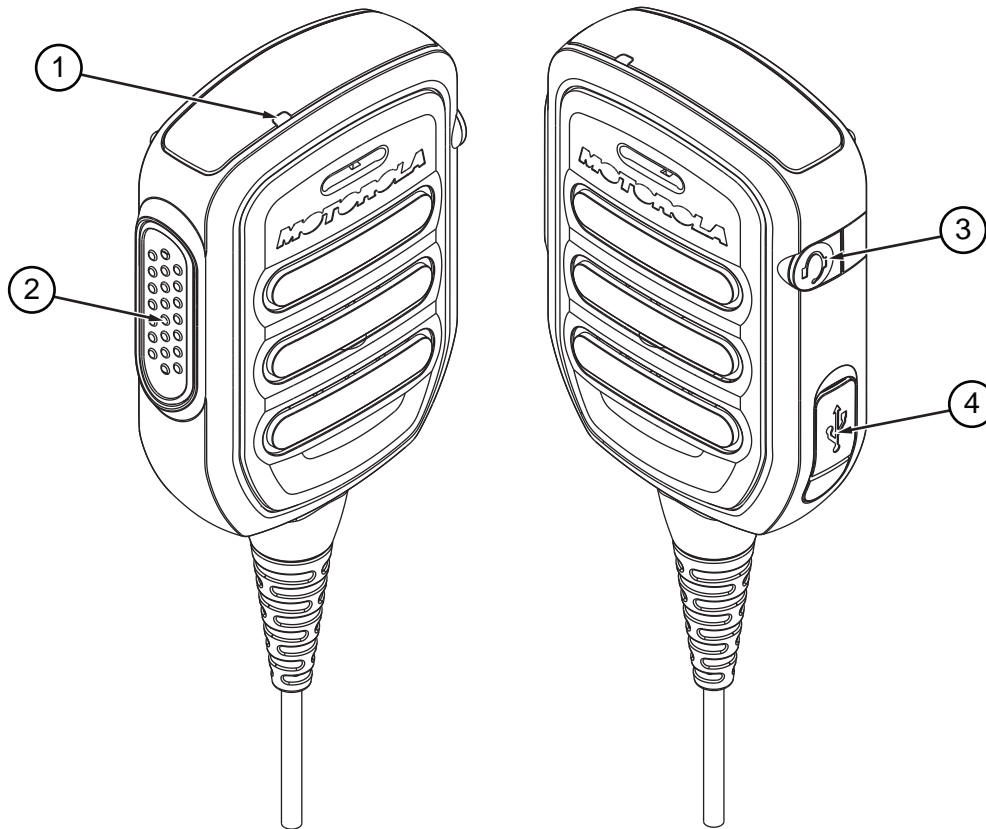


Table 1: RSM Features

Label	Description
1	Charging indicator
2	Push-to-talk button
3	Receive-only 3.5 mm audio jack (unthreaded) covered by a dust cap
4	Micro-USB charging port covered by a dust cap

## Chapter 5

# Charging the Battery

### Procedure:

- 1 Unplug the RSM from the radio.
- 2 Connect the USB charging cable to the RSM.



**IMPORTANT:** Charge the RSM immediately to prevent flat-battery condition.

Table 2: Charging Indicator Behavior

Indicator	Description
Blinking red	Battery is low.
Solid red	Battery is charging.
Solid green	Battery is fully charged.

## Chapter 6

# Maintenance

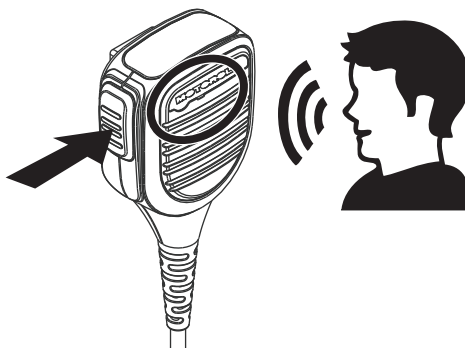
This chapter provides information about the care and maintenance of this radio.

## Recommended RSM Wearing, Transmitting, and Receiving Positions

**Figure 1: Wearing**



**Figure 2: Transmitting**



**Figure 3: Receiving**



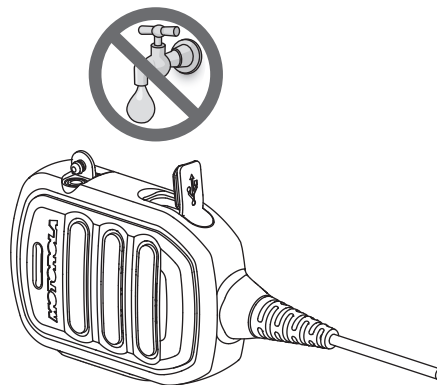
## Recommended Practice



**CAUTION:** Do not let the audio jack and USB charging port come in contact with water.

- If water enters the audio jack and/or the USB charging port, remove the water by shaking the RSM.
- Always cover the audio jack and USB charging port with a dust cap when it is not in use.

**Figure 4: Recommended Practice**

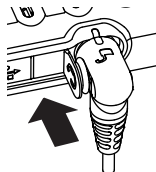


## Attaching the RSM to the Radio

### Procedure:

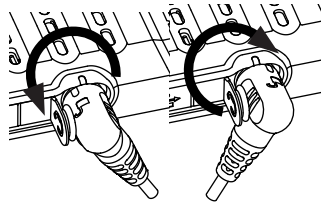
- 1 Turn off the radio.
- 2 Open the rubber seal of the 2.5 mm audio jack on the side of the radio.
- 3 Insert the RSM 2.5 mm plug into the audio jack.
- 4 To lock the mechanism, align the indicators on the connector and housing, then push until the connector fits in properly.

**Figure 5: Attaching the Connector**



- 5 Rotate the connector clockwise or counter-clockwise to lock.

**Figure 6: Rotating the Connector**



- 6 Turn on the radio.
  - 7 Adjust the audio volume to a comfortable listening level.
- You can hear a detection tone at the accessory speaker.



**NOTICE:**

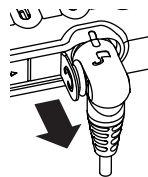
- When the RSM is connected to the radio, the speaker of the radio is muted, and you can only hear the audio from the RSM speaker.
- For the best voice quality, ensure that the RSM microphone is held close to the mouth when speaking.

## Detaching the RSM from the Radio

**Procedure:**

- 1 Turn off the radio.
- 2 Remove the RSM unit from the 2.5 mm audio jack.
- 3 To unlock the mechanism, rotate the RSM 2.5 mm audio jack until the indicator on the connector and the radio housing are aligned.

**Figure 7: Detaching the Connector**



- 4 Gently pull out the connector to disconnect it from the radio.

## Replacing the Coil Cord

**Prerequisites:**



**WARNING:**

- Before you start the dismantling procedure, detach the RSM from the radio.
- Wear an appropriate electrostatic discharge (ESD) protection device.

**Procedure:**

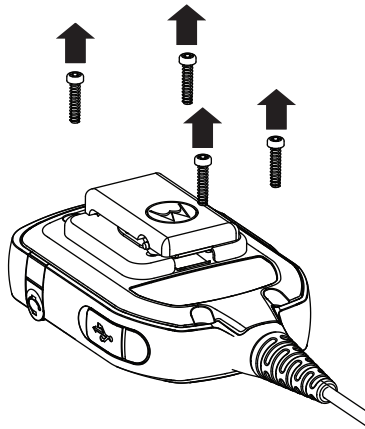
- 1 Unscrew the four screws from the back housing.



**WARNING: Safety Critical**

Use a T8 pin torx screwdriver with 3.5 +/-0.2 lbf-in torque to remove the screws.

**Figure 8: Unscrewing the Back Housing**



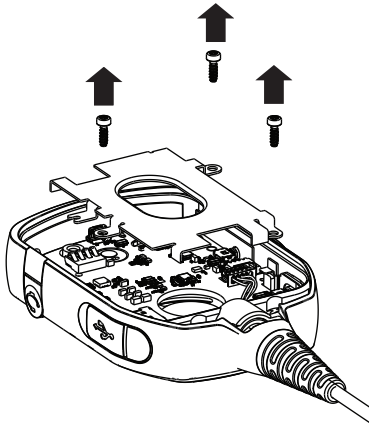
- 2 Unscrew the three screws from the battery tray.



**WARNING: Safety Critical**

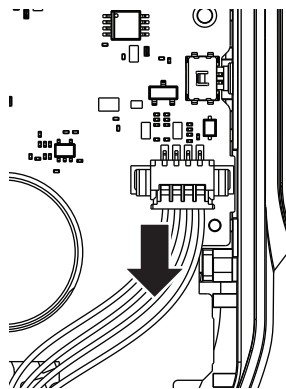
Use a T6 torx screwdriver with 2.8 +/-0.2 lbf-in torque to remove the screws.

**Figure 9: Unscrewing the Battery Tray**



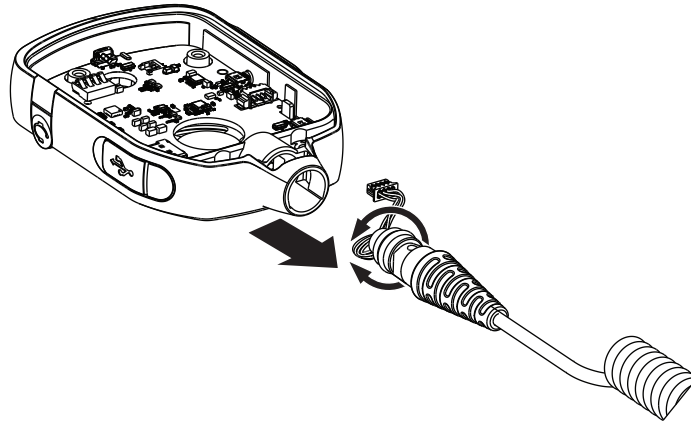
- 3 Disconnect the cable connector from the molex.

**Figure 10: Disconnecting the Cable Connector**



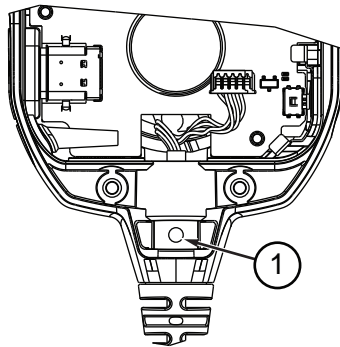
- 4 Twist and pull out the cable.

**Figure 11: Removing the Cable**



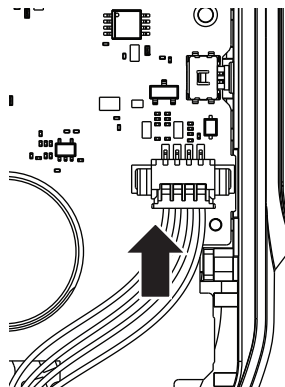
- 5 Connect the new cable, ensure that the cable orientation is correct with one hole facing out.

**Figure 12: Cable Orientation**



- 6 Attach the cable connector to the molex.

**Figure 13: Attaching the Cable Connector**



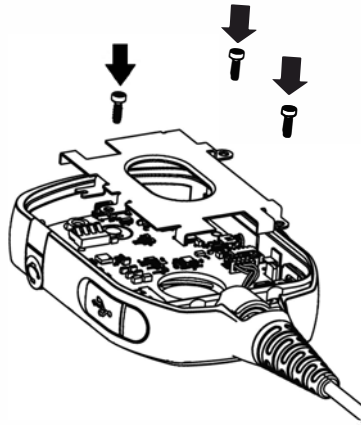
- 7 Reassemble the battery tray by screwing in the three screws.



**WARNING: Safety Critical**

Use a T6 torx screwdriver with 2.8 +/-0.2 lbf-in torque to ensure that the screws are tightened.

**Figure 14: Reassembling the Battery Tray**



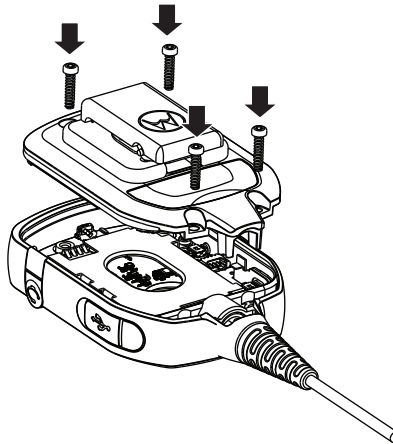
- 8 Reassemble the back housing by screwing in the four screws.



**WARNING: Safety Critical**

Use a T8 pin torx screwdriver with 3.5 +/-0.2 lbf-in torque to ensure that the screws are tightened.

**Figure 15: Reassembling the Back Housing**



**WARNING: Safety Critical**

- Do not power up the RSM and/or connect the audio jack immediately after replacing the coil cord and reassembling the RSM.
- To ensure that there are no loose elements left, shake the device gently.
- If you hear any internal rattling or any abnormal sound, disassemble the RSM to inspect for any abnormalities, for example, loose components.

## Replacing the Battery

**Prerequisites:**




**WARNING:**

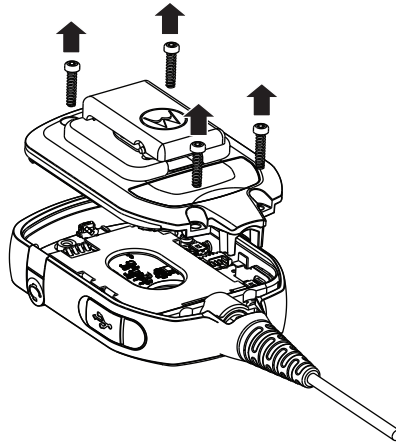
- Before you start the dismantling procedure, detach the RSM from the radio.
- Wear an appropriate electrostatic discharge (ESD) protection device.

**Procedure:**


- 1 Unscrew the four screws from the back housing.

 **WARNING: Safety Critical**  
Use a T8 pin torx screwdriver with 3.5 +/-0.2 lbf-in torque to remove the screws.

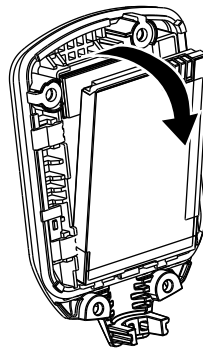
**Figure 16: Unscrewing the Back Housing**




- 2 Remove the battery gently from the top.

 **WARNING: Safety Critical**  
Do not use conductive or sharp tools when removing the battery.

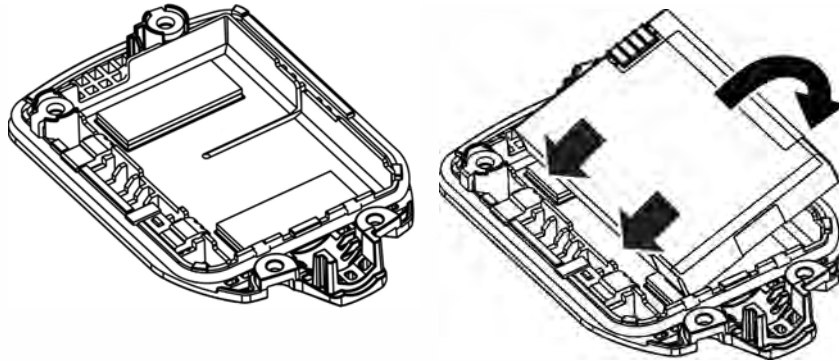
**Figure 17: Removing the Battery**



- 3 Insert the battery into the battery compartment. Attach the left side of the battery first.

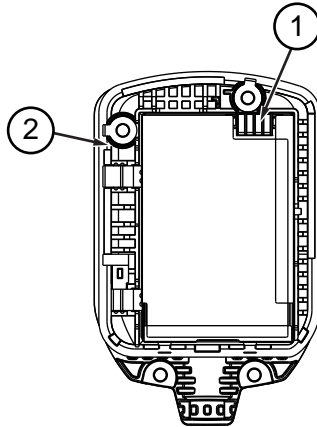
 **WARNING: Safety Critical**  
Use only Motorola Solutions authorized BT60 Battery (HKNN4014\_).

**Figure 18: Inserting the Battery**



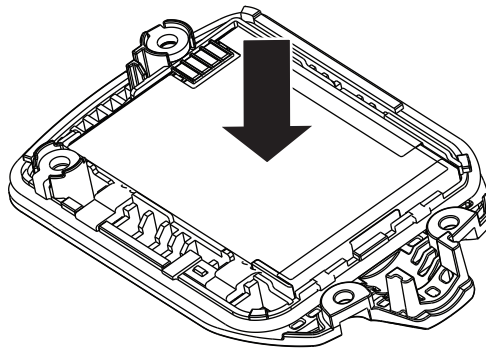
**CAUTION:**

- 1 Ensure that the battery contact is facing outward and at the top right corner.
- 2 Ensure that the rubber seal is securely in place.



- 4 Secure the battery by pressing it down.

**Figure 19: Securing the Battery**



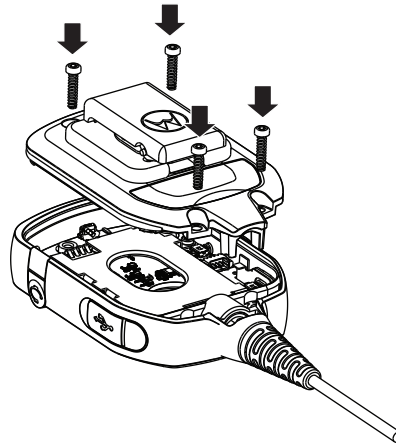
- 5 Reassemble the back housing by screwing in the four screws.



**WARNING: Safety Critical**

Use a T8 pin torx screwdriver with 3.5 +/-0.2 lbf-in torque to ensure that the screws are tightened.

**Figure 20: Reassembling the Back Housing**



**WARNING: Safety Critical**

- Do not power up the RSM and/or connect the audio jack immediately after replacing the battery.
- To ensure that there are no loose elements left, shake the device gently.
- If you hear any internal rattling or any abnormal sound, disassemble the RSM to inspect for any abnormalities, for example, loose components.

## Chapter 7

# Optional Accessories

- Receive-only earpiece with translucent tube (PMLN7560)<sup>1</sup>
- Belt clip (42009312001)<sup>1</sup>

---

<sup>1</sup> Some part numbers may have regional prefix such as AA, MD, or AZ.

## Chapter 8

# Replacement Parts

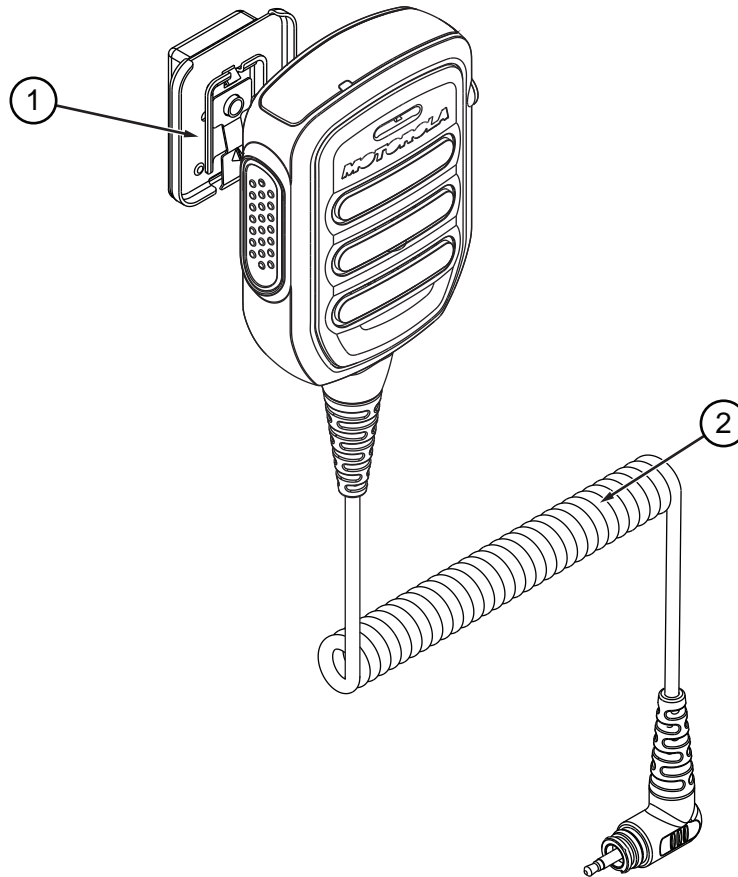


Table 3: Replacement Parts

Label	Description
1	Short Swivel Clip (4205823V01)
2	2.5 mm Jack Coil Cord (PMKN4224_)