**ACCESSORIES** 

# LONG RANGE WIRELESS SOLUTIONS USERGUIDE



WIRELESS REMOTE SPEAKER MICROPHONE PMMN4095\_
MOBILE MICROPHONE WITH BLUETOOTH GATEWAY PMMN4097\_
DUAL-UNIT CHARGER PMLN6714\_
VEHICULAR CHARGER PMLN6716\_
WIRELESS REMOTE SPEAKER MICROPHONE BATTERY PMNN4461\_



### **CHAPTER 1: FOREWORD**

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

### ATTENTION!

The microphone is restricted to occupational use only to satisfy ICNIRP/FCC RF energy exposure requirements. Before using this product, read the RF Energy Exposure and Product Safety Guide that ships with the radio which contains instructions for safe usage and RF energy awareness and control for compliance with applicable standards and regulation.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by Motorola may void the user's authority to operate this device.

Under Industry Canada regulations, this microphone transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Ca nada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation.

### **Battery Information:**

Battery is shipped with a nominal charge between 30% and 50%. Battery should be stored between -10 °C (14 °F) and 30 °C (86 °F) to minimize permanent capacity loss.

**CAUTION**: Storing your fully charged accessory in high-temperature conditions may permanently reduce the life of the internal battery.

### Important Information:

- Hold the microphone in a vertical position with the microphone at least one inch (2.5 centimeters) away from the nose or lips.
- Body Worn Operation. When microphone is worn on the body, always use Motorola-approved clip for this product. Using approved bodyworn accessories is important because the use of non-Motorolaapproved accessories may result in exposure levels, which exceed the FCC occupational/controlled environment RF exposure limits.
- Use only Motorola-approved supplied or replacement batteries. Use of non-Motorola-approved batteries may exceed the applicable RF exposure guidelines (iEEE, ICNIRP or FCC).
- DO NOT charge your accessory in temperatures 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 this range 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.



### **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.

### CHARGERS SAFETY INFORMATION

### Important Safety Information

This document contains important safety and operating instructions. Please read these instructions carefully and save them for future reference.

Before using the battery charger, read all the instructions and cautionary markings on (1) the Dual-Unit Charger / Vehicular Charger, (2) the battery, and (3) on the Wireless Remote Speaker Microphone (WRSM).

### WARNINGS



WARNING

- To reduce risk of injury, charge only the rechargeable Motorola authorized batteries listed in Table 1.1. Other batteries may explode, causing personal injury and damage.
- 2. Use of accessories not recommended by Motorola may result in risk of fire, electric shock, or injury.
- To reduce risk of damage to the electric plug and cord of the DUC, pull by the plug rather than the cord when disconnecting the charger.
- To reduce risk of damage to the CLA and cord of the Vehicular Charger, pull by the CLA rather than the cord when disconnecting the charger.
- An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in risk of fire and electric shock. If an extension cord must be used, make sure that the cord size is 18 AWG for lengths of up to 100 feet (30.48 m), and 16 AWG for lengths up to 150 feet (45.72 m).
- To reduce risk of fire, electric shock, or injury, DO NOT operate the charger if it has been broken or damaged in any way. Take it to a qualified Motorola service representative.
- DO NOT disassemble the charger it is not repairable and replacement parts are not available. Disassembly of the charger may result in risk of electric shock or fire.
- To reduce risk of electric shock of the DUC, unplug the charger from the AC outlet before attempting any maintenance or cleaning.
- To reduce risk of electric shock of the Vehicular Charger, unplug the Vehicular Charger from the CLA power source before attempting any maintenance or cleaning.
- This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.





Table 1.1: Motorola Authorized Battery

Kit (Part) Number	Platform/Description
PMNN4461_	Battery Standard Li-Ion 1750M1880T

**NOTE:** The Dual-Unit Charger is not designed to accommodate the alkaline battery tray.

### **OPERATIONAL SAFETY GUIDELINES**

### Dual-Unit Charger PMLN6714\_

- This equipment is not suitable for outdoor use. Use only in dry locations/conditions.
- Ensure the WRSM with attached battery or battery alone is dry before inserting into the Dual-Unit Charger.
- Connect equipment only to an appropriately wired power supply of the correct voltage (as specified on the product). Disconnect from line voltage by removing main plug.
- The socket outlet to which this equipment is connected should be close by and easily accessible.
- Maximum ambient temperature around the Dual-Unit Charger equipment must not exceed 50 °C (122 °F).
- Output voltage from the power supply unit must not exceed the ratings stated on the product label located on the power supply.
- Make sure the cord is located where it will not be stepped on, tripped over, or subjected to water, damage, or stress.

### Vehicular Charger PMLN6716

- Equipment shall be used in vehicle and in dry condition. Keep in mind that rain or snow can reach the equipment i.e. through an open vehicle window.
- Ensure the WRSM with attached battery or battery alone is dry before inserting into the Vehicular Charger.
- Connect equipment only to an appropriately vehicle's cigar lighter socket of the correct voltage (as specified on the product).
   Disconnect from line voltage by removing the CLA.
- Maximum ambient temperature around the Vehicular Charger equipment must not exceed 60 °C (140 °F).
- Output voltage from the vehicle's cigar lighter socket unit must not exceed the ratings stated on the product label located at the back of the charger.
- Make sure the cord is located where it will not be stepped on, tripped over, or subjected to water, damage, or stress.





### **RADIOS COMPATIBILITY**

The Mobile Microphone Bluetooth<sup>®</sup> Gateway is compatible with the radios listed below:

Table 1.2: Radios Compatibility

Region	Model Series
North America	XPR5550*, XPR5350*, XPR4580, XPR4550, XPR4380 and XPR4350.
Latin America	DGM8500*, DGM8000*, DGM6100, DGM5500*, DGM5000* and DGM4100.
European	DM4601*, DM4600*, DM4401*, DM4400*, DM3601, DM3600 DM3401 and DM3400.
Asia Pacific and Middle East	XIR M8600*, XIR M8200, DM4600, DM4400, DM3600 and DM3400.

NOTE: \*Only compatible with Numeric Display Control Head PMLN5677B and Color Display Control Head PMLN5678B or later.

### **SOFTWARE COMPATIBILITY**

The Long Range Wireless Solutions are compatible with the Mission Critical Wireless Pod software version R01.05.00 or later.





# WIRELESS RSM PMMN4095\_

# CHAPTER 2: WIRELESS RSM PMMN4095\_



The PMMN4095 Wireless Remote Speaker Microphone (WRSM) is designed to be used with the PMMN4097 Mobile Microphone Bluetooth<sup>®</sup> Gateway.

### PREPARING YOUR WRSM FOR USE

Assemble your WRSM by following these steps:

Assembling the Swivel Clip page
Attaching the Battery page
Detaching the Batterypage
Charging the Battery page
Language Selection page
Pagammandad Wagring Pagitians

1



### Assembling the Swivel Clip

Insert the swivel clip through the battery slot. Rotate the clip to the right position as indicated in Figure 2.1 below.

Figure 2.1: Assembling the swivel clip

### **Attaching the Battery**

With the WRSM turned off, align the battery to back chassis and fully slot in until the battery latch is engaged.



Figure 2.2: Attaching the battery into the WRSM

### **Detaching the Battery**

To detach the battery, lift up the battery latch and pull the battery backward until the battery is fully disengaged from the back chassis.



Figure 2.3: Removing the battery from the WRSM

### **Charging the Battery**



Figure 2.4: Charging position of the WRSM with battery attached

3





WARNING

### To avoid a possible explosion:

- DO NOT replace the battery in any area labeled "hazardous atmosphere".
- **DO NOT** discard batteries in a fire.

The Motorola-approved battery shipped with your WRSM is uncharged. Prior to using a new battery, fully charge the new battery to ensure optimum capacity and performance.

NOTE: When charging a battery attached to a WRSM, turn the WRSM OFF to ensure a full charge.

### **Battery Charger**

To charge the battery, place the battery, with or without the WRSM, in a Motorola-approved charger. When initially inserting the battery into the charger, the charger's LED will turn red. DO NOT use WRSM until the charger's LED turn Green,

The charger's LED indicates the charging progress; see Chapter 4 and Chapter 5 or the label printed on the charger.

Align the slot of the battery with the charger's rail and slot in. Refer to Figure 2.4.

### **Language Selection**

Power ON the WRSM by pressing and holding Power Button until you hear the language selection prompts.

Follow the procedure below if you want to reset to your desired language.

### Procedure:

- 1 Hold the Power Button for 6 seconds after the power up LED indication illuminated to enter the language selection feature.
- 2 Select your desired language by pressing the PTT button. Refer to Table 2.1 below for the Language Selection Indicators.

Table 2.1: Language Selection Indicators

State	Power Indication LED	Voice Prompt
Language Selection	LED illuminated	"For English press PTT now" (Menu selection prompts)



Figure 2.5: Language Selection

### **Recommended Wearing Positions**

For optimum performance, wear the WRSM as highlighted in Figure 2.6 below.



Figure 2.6: Recommended wearing positions

NOTE: When the WRSM is worn on the body, always use Motorolaapproved clip. Using approved body-worn accessories is important because the use of non-Motorola-approved accessories may result in exposure levels, which exceed the FCC occupational/controlled environment RF exposure limits.

5



### **IDENTIFYING WRSM INDICATORS AND CONTROLS**

Take a moment to review the following:

Overview of the WRSM	page 6
Power Indicators and Battery Alerts	page 7
Audio Indicators	page 7

### **Overview of the WRSM**



Figure 2.7: Wireless Remote Speaker Microphone Overview

6



### **Power Indicators and Battery Alerts**

The WRSM is battery powered. It is very important to pay attention to the low battery warning described in Table 2.2 to avoid improper functioning of the WRSM.

Table 2.2: Power Indicators and Battery Alerts

State	Power Indication LED	Tone Indication	Remaining Battery Life
Normal Battery	Green	No tone	11 hours (full charged) – 30 minutes
Low Battery	Amber	Low Battery tone every 2 minutes	Less than 30 minutes
Critical Battery	Red	Low Battery tone every 30 seconds	Less than 10 minutes

### **Audio Indicators**

Table 2.3: Audio Indicators		
State Audio Indication LE		
Audio Not Available, Device Not Paired	OFF	
Audio Available, Good Signal	Blue Blink	
Audio Available, Poor Signal / Edge of Range	Amber Blink	
Audio Available, Muted	Red Blink	
Audio Not Available, Disconnected / Reconnecting	Blue Solid	
Audio Not Available, Disconnected / Reconnecting and Muted	Red Solid	

7



### **GENERAL WRSM OPERATION**

Once you understand how your WRSM is configured, you are ready to use your WRSM. Use this navigation guide to familiarize yourself with the basic features:

owering ON/OFF the WRSM page 8
/olume Control
Pairing Your WRSM page 9
ransfer Audio page 10
Subsequent Connection
Poor Signal / Out Of Range Warning Indication page 11
Programmable Button (Orange Button) page 11
asklight Buttonpage 12
Dark Mode page 12
Secondary Receiver Audio Accessory page 13
Failure Detected Indication and Handling page 13
roubleshooting page 13
Firmware Upgrade
Anatel Label page 14

### Powering ON/OFF the WRSM

To power ON the WRSM, press and hold the Power Button until you hear "Motorola Solutions" prompt. To power OFF, press the Power Button until the WRSM turns off.

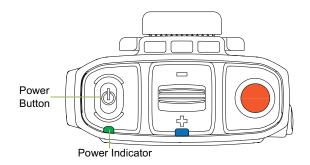


Figure 2.8: Powering on your WRSM

Table 2.4: Power ON/OFF LED and Tone Indicators

Power	Power Indication LED	Tone Indication	Voice Prompt
ON	LED blinks 3 times	"Motorola Solutions"	"Motorola Solutions, Power On"
OFF	LED blinks 3 times then OFF	Power Off tone	"Power Off"

8



### **Volume Control**

To increase the volume, push volume lever towards the  $\Box$ . To decrease the volume, push lever towards the  $\Box$ .

To mute, hold lever to the  $\ \ \ \ \ \ \ \ \ \$  for 2 seconds. To unmute, push lever to the  $\ \ \ \ \ \ \ \ \$  or press the PTT button. Volume returns to the previous level.

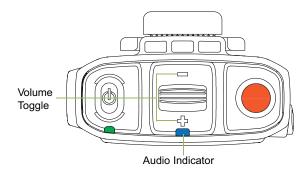


Figure 2.9: Volume Control

The color of the Audio Indicator LED changes according to Table  $2.3\ .$ 

### **Pairing Your WRSM**

### Procedure:

- 1 Ensure both the radio and WRSM are powered on.
- Place the blue dot (secure pairing spot) on the WRSM within one inch of the blue dot (secure pairing spot) on the Mobile Mic Gateway. Refer to Figure 2.10.
- 3 During pairing, the Audio Indicator LED blinks according to the pairing status. Refer to Table 2.5 for pairing indicators.

Table 2.5: Pairing LED, Tone Indication and Voice Prompt

State	Audio Indication LED	Tone Indication	Voice Prompt
Not Paired	Off	Pairing Ready tone every 2 minutes	"Touch blue dots together to connect" every 2 minutes
Paired Successfully	LED illuminated	Pairing Successful tone	"Connecting"
Wireless Link Connected with Host	LED Heartbeat	Connected tone	"Connected"
Wireless Link Disconnected from Host	LED illuminated	Disconnected tone every 2 minutes	"Disconnected" *

NOTE: \* You will hear Disconnected tone every 2 minutes after the WRSM prompts "Disconnected".

...........

9





If the WRSM has been paired with a Mobile Mic Gateway and needs to now be paired with a different Mobile Mic Gateway, the WRSM do not have to clear its previous pairing. The previous pairing will be cleared automatically when pair with a new Mobile Mic Gateway.

### **Transfer Audio**

### Procedure:

- Press the PTT button on the Mobile Mic Gateway to unpair and audio will route back to the Mobile Radio.
- 2 Alternatively, place the blue dot (secure pairing spot) on the WRSM within one inch of the blue dot (secure pairing spot) on the Mobile Mic Gateway. The audio will route back to the Mobile Radio/Mobile Mic Gateway. Audio indication LED on the WRSM will not be lit.

### **Subsequent Connection**

### Same Host:

If the wireless link is lost, connection will be automatically re-established when the host and WRSM come within communication range.

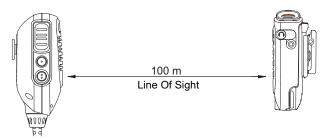


Figure 2.11: Communication range

### **New Host:**

Follow steps from "Pairing Your WRSM" on page 9 for new connection.



# Poor Signal / Out Of Range Warning Indication

You will be prompted with the Poor Signal / Ouf Of Range Warning Indication if the WRSM is about to lose the wireless link at Bluetooth fringe area.

This warning indication will turn off if the user moves closer or if the signal quality improves.

Refer to Table 2.6 below for the Poor Signal / Out Of Range Indication:

Table 2.6: Poor Signal / Out Of Range Warning Indicator

State	Audio Indication LED	Tone Indication
Poor Signal / Ouf Of Range	Amber LED illuminated for 2 seconds	"Bad Bonk" Tone

### Push-to-Talk (PTT) Button

Press and hold down the PTT button to talk. Release the PTT button to listen. The microphone is activated when the PTT button is pressed.



Figure 2.12: Pressing Push-to-Talk Button

### **Programmable Button (Orange Button)**

This Programmable Button is mapped to the Mobile Mic Gateway 2-Dot Button. Pressing the Programmable Button on the WRSM will trigger the event set in 2-Dot Button. The 2-Dot Button is programmable through radio's Customer Programming Software (CPS). Your radio's User Guide contains a full description of the programmable functions that are available through this button.

11



### **Tasklight Button**

Press the Tasklight Button for 1 second to switch ON/OFF the tasklight.

During low/critical battery, the Tasklight blinks for 30 seconds and will be auto switched OFF.

**NOTE:** The Tasklight is disabled when WRSM is in Dark Mode.

### **Dark Mode**

Dark Mode allows you to turn OFF the LEDs on the WRSM.

**IMPORTANT:** When the WRSM is in Dark Mode and muted state, all indications will be turned OFF.

To activate the Dark Mode feature, follow the steps below:

### Procedure:

- 1 Press and hold the Tasklight Button until Dark Mode is ON. The Tasklight will blink for 1 second upon entering/exiting Dark Mode.
- 2 Refer to Table 2.7 below for the Dark Mode Indicators.

**NOTE:** To disable the Dark Mode feature, press the Tasklight Button for 3 seconds.

Table 2.7: Dark Mode Indicators

Indication	Power Indication, Audio Indication and Tasklight LED	Tone Indication	Voice Prompt
Dark Mode ON	LED illuminated for 1 second then OFF	"Dark Mode" tone	"Lights OFF, Press and hold Tasklight Button to switch lights ON"
Dark Mode OFF	LED illuminated for 1 second	"Dark Mode" tone	"Lights ON"

NOTE: All three LEDs (Power Indicator, Audio Indicator & Tasklight) blink for 1 second and off at the same time when turning ON/ OFF the Dark Mode.

**12** 



### **Secondary Receiver Audio Accessory**

When a secondary accessory is plugged into the audio jack, audio will be routed through secondary accessory

### **Attaching Secondary Receiver Audio Accessory**

Lift up the dust cover and rotate 90  $^{\rm o}$  . Plug the dust cover to the housing slot. Insert the secondary receiver audio accessory to 3.5 mm audio jack.



Figure 2.13: Attaching secondary receiver audio accessory

### **Optional Accessories**

Table 2.8: Optional Accessories

Part Number	Description
RLN4941_	Earpiece with Coiled Cord and 3.5 mm RT Angle Plug
RLN4885_	Receiver Earbud for Remote Speaker Microphone

**NOTE:** Some part numbers may have regional prefix such as AA, MD or AZ.

### **Failure Detected Indication and Handling**

Any product error is indicated by alternating Red and Green blinks and a failure detected indication (tone / voice prompt) will be heard. A few seconds later the WRSM will recover.

### **Troubleshooting**

If at any time the wireless connection cannot be re-established, or the WRSM is operating incorrectly:

### Procedure:

- Power cycle the WRSM and the two-way radio.
- 2 Refer to "Pairing Your WRSM" on page 9" to repeat the connection process.

13



### Firmware Upgrade

Firmware upgrade is available for this WRSM and it is only upgradeable by your dealer. Check with your dealer for more information on the latest firmware upgrades.

**NOTE:** DO NOT charge the WRSM with this micro USB port, it is strictly for firmware upgrade only.

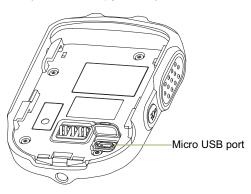


Figure 2.14: Location of the micro USB port

### **Anatel Label**



This equipment operates as a secondary user, so it is not entitled to protection from harmful interferences, even if generated by similar equipment, and it may not cause harmful interference on systems operating as primary users.

14



# MOBILE MIC BLUETOOTH® GATEWAY PMMN4097\_

# CHAPTER 3: MOBILE MIC BLUETOOTH® GATEWAY PMMN4097\_



The PMMN4097 Mobile Microphone Bluetooth Gateway is designed to be used with PMMN4095 Wireless Remote Speaker Microphone.

# PREPARING YOUR MOBILE MIC GATEWAY FOR USE

Assemble your Mobile Mic Gateway by following these steps:

Installing Mobile Mic Gateway to a Mobile Radio	. page	1
Mounting the Hang-Up Clip	. page	16
Making Final Connections	. page	1



# Installing Mobile Mic Gateway to a Mobile Radio

Carefully select the installation location for the Mobile Mic Gateway. Plan the installation so that the Mobile Mic Gateway's location is within convenient reach of the user, but will not interfere with the vehicle's operation. Also, consider the operation of other vehicle accessories. Functions assigned to the hook switch on the Mobile Radio are not supported with the Long Ranges Wireless Solution. Therefore, the hook switch functions must be set to disabled on the Mobile Radio.

### Mounting the Hang-Up Clip

Once an installation location has been decided, perform the following steps:

### Procedure:

- 1 Verify that the selected mounting surface is strong enough to support the mounting hardware and the Mobile Mic Gateway.
- Use the base of the hang-up clip as a template to center punch and drill two three millimeter (0.125 inch) diameter holes. Be careful not to damage any wires or any other vehicle components when drilling the holes.
- 3 Use the two self tapping screws provided to mount and secure the hang-up clip.

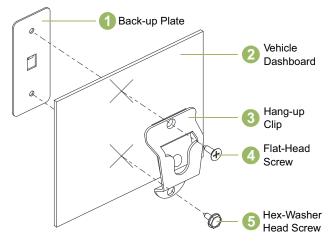


Figure 3.1: Installing the Mounting Bracket

### **Making Final Connections**

When the hang-up clip is installed and secured, follow the steps below:

### Procedure:

- 1 Snap the Mobile Mic Gateway into the hang-up clip.
- 2 Connect the Mobile Mic Gateway's coiled cord plug to the Mobile Mic Gateway's connector on the front of the radio. Align the connector pins then twist outer collar clockwise to lock in place.

16

# IDENTIFYING MOBILE MIC GATEWAY CONTROLS

Take a moment to review the following:

Overview of the Mobile Mic Gateway	page	17
Configuring the Programmable Buttons	page	18

### **Overview of the Mobile Mic Gateway**

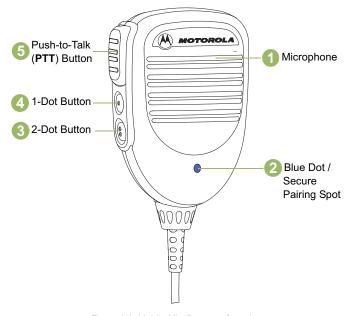


Figure 3.2: Mobile Mic Gateway Overview

**Englis**l



MOBILE M C **BLUETOOTH® GATEWAY PMMN4097** 

### **Configuring the Programmable Buttons**

The 1-Dot Button and 2-Dot Button on the Mobile Mic Gateway are programmable through radio's Customer Programming Software (CPS). Your radio's User Guide contains a full description of the programmable functions that are available through these buttons. Check with your dealer for more information supporting the programmable buttons.

NOTE: The Programmable Button (Orange Button) on the WRSM is mapped to operate as the 2-Dot Button on the Mobile Mic Gateway.

# GENERAL MOBILE MIC GATEWAY OPERATION

Once you understand how your Mobile Mic Gateway is configured, you are ready to use your Mobile Mic Gateway. Use this navigation guide to familiarize yourself with the basic features:

Pairing Your Mobile Mic Gateway with WRSMpage 19
Pairing Your Mobile Mic Gateway with Wireless PTTpage 19
Transfer Audio Or Replacing With New Wireless Device page 20
Wireless Link Lost
Wireless Link Restored
Mobile Mic Gateway Operation page 21
Disconnecting the Mobile Mic Gateway from Mobile Radio page 22
Coiled Cord Replacement page 22
Anatel Label



### Pairing Your Mobile Mic Gateway with WRSM

### Procedure:

- 1 Ensure both the Mobile Mic Gateway and WRSM are powered on.
- Place the blue dot (secure pairing spot) on the Mobile Mic Gateway within one inch of the blue dot (secure pairing spot) on the WRSM. The Mobile Mic Gateway allows a maximum of one wireless audio device and one wireless PTT device to pair with it.
- 3 Mobile Mic Gateway needs to be re-paired (reconnected) upon each power up.

**NOTE:** If the Mobile Mic Gateway to be paired with other wireless device such as wireless PTT, the device has to be placed in a pairing mode.



Figure 3.3: Pairing your Mobile Mic Gateway with WRSM

IMPORTANT: There will be no audio from the Mobile Radio once the WRSM is paired with the Mobile Mic Gateway. The system is not designed to have audio coming from both the Mobile Radio and WRSM simultaneously. Pressing the PTT button on the Mobile Mic Gateway while the WRSM is in use will disconnect the WRSM and revert the audio back to the Mobile Radio.

### Pairing Your Mobile Mic Gateway with Wireless PTT

### Procedure:

- 1 Ensure both the Mobile Mic Gateway and wireless PTT are powered on and in pairing mode.
- Place the blue dot (secure pairing spot) on the Mobile Mic Gateway within two inches of the blue dot (secure pairing spot) on the wireless PTT.
- 3 The wireless PTT connection range with Mobile Mic Gateway is within 10 meters. Do take note that the wireless PTT will have a shorter connection range compared to the WRSM.

IMPORTANT: If the wireless PTT paired with the Mobile Mic Gateway before the audio device, the pairing will be saved but the wireless PTT will be disconnected. The wireless PTT will connect when an audio device is connected.





Figure 3.4: Pairing your Mobile Mic Gateway with a wireless PTT

**NOTE:** When the Wireless PTT is low in power, your WRSM indicates a low battery tone.

## Transfer Audio Or Replacing With New Wireless Device

### Procedure:

- 1 Press the PTT button on the Mobile Mic Gateway to unpair and audio will route back to the Mobile Radio.
- Alternatively, place the blue dot (secure pairing spot) on the WRSM within one inch of the blue dot (secure pairing spot) on the Mobile Mic Gateway. The audio will route back to the Mobile Radio/Mobile Mic Gateway. Audio indication LED on the WRSM will not be lit.

### To Pair With A New Wireless Device:

Follow the procedure from "Pairing Your Mobile Mic Gateway with WRSM" on page 19 for new pairing.

NOTE: If the Mobile Mic Gateway has been paired with a WRSM and needs to now be paired with a different device, the Mobile Mic Gateway does not have to clear its previous pairing. The previous pairing will be cleared automatically when pair with a new device.

### **Wireless Link Lost**

In the event of interference, or if the Mobile Mic Gateway is prompted with Poor Signal / Out Of Range indicator, the link between the WRSM and Mobile Mic Gateway may be lost.

If the link between the WRSM and Mobile Mic Gateway is lost, the received audio is automatically routed back to the radio's speaker.

Enalish



### **Wireless Link Restored**

**NOTE:** Once the wireless device is in range or after interference has subsided, the link between the WRSM and Mobile Mic Gateway is restored.

### **Mobile Mic Gateway Operation**

### **Transmitting**

To transmit using your Mobile Mic Gateway, follow the steps below:

### Procedure:

- 1 Hold the Mobile Mic Gateway approximately five centimeters (2 inches) from your mouth.
- 2 Press the PTT button.
- 3 Speak directly into the grill openings located in the upper center of the Mobile Mic Gateway face.
- 4 Release the PTT button to listen.
- When the Mobile Mic Gateway is in use, there is no audio on the WRSM.

**NOTE:** Audio will continue via the Mobile Mic Gateway until the WRSM is reconnected to the Mobile Mic Gateway via the alignment of the Blue pairing dots.

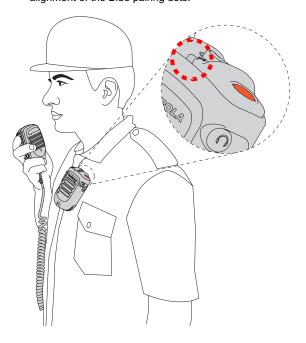


Figure 3.5: Using Your Mobile Mic Gateway



# Disconnecting the Mobile Mic Gateway from Mobile Radio

To disconnect the Mobile Mic Gateway from your mobile radio, follow the steps below:

### Procedure:

- Turn the locking collar of the Mobile Mic Gateway in a quarter turn counterclockwise.
- 2 Pull the cable from the accessory interface connector to release.

### **Coiled Cord Replacement**

To remove the PMMN4097 coiled cord, follow the steps below:

### Procedure:

- 1 Rotate the locking collar at the base of the Mobile Mic Gateway in a counterclockwise direction until it stops.
- Pull the cord out and away from the base of the Mobile Mic Gateway.
- 3 Install a coiled cord in the reverse order of removal.

### **Anatel Label**



This equipment operates as a secondary user, so it is not entitled to protection from harmful interferences, even if generated by similar equipment, and it may not cause harmful interference on systems operating as primary users.

22



# **DUAL-UNIT CHARGER PMLN6714\_**

# CHAPTER 4: DUAL-UNIT CHARGER PMLN6714\_



The Dual-Unit Charger is intended for use with the Motorola-approved Lithium-ion rechargeable batteries (listed in Table 4.1). Both pockets are capable in charging Wireless Remote Speaker Microphone (WRSM) with battery or battery alone.

An illuminated LED indicates the state of charge for the first and second pocket.

### PREPARING YOUR DUC FOR USE

Take a moment to review the following:

Operational Guidelines	page 24
Motorola Authorized Battery	page 24
Motorola Authorized Power Sources/Power Supplies	page 24
Overview of the DUC	page 25
Operating Instructions	page 26

LED Light Indication ......page 27
Troubleshooting .....page 28

23



### **Operational Guidelines**

- Always remember to power ON the Dual-Unit Charger first before inserting the WRSM with the attached battery or battery alone into the pocket.
- The Dual-Unit Charger is designed to provide simultaneous charging for both pockets.

### **Motorola Authorized Battery**

The battery listed in Table 4.1 is approved for use with the Dual-Unit Charger.

Table 4.1: Motorola Authorized Battery

Kit (Part) Number	Platform/Description
PMNN4461_	Battery Standard Li-Ion 1750M1880T

**NOTE:** The Dual-Unit Charger is not designed to accommodate the alkaline battery tray.

# Motorola Authorized Power Sources/Power Supplies

The Power Sources/Power Supplies listed in Table 4.2 are approved for use with the Dual-Unit Charger:

Table 4.2: Motorola Authorized Power Supply

Power Supply Kit Number	Description
25012022001*	Power Supply, Charger Switch Mode, 110 – 240 V US/NA/JPN/TAIWAN
25012022002	Power Supply, Charger Switch Mode, 110 – 240 V EURO
25012022003	Power Supply, Charger Switch Mode, 110 – 240 V UK
25012022004	Power Supply, Charger Switch Mode, 110 – 240 V CHINA
25012022006	Power Supply, Charger Switch Mode, 110 – 240 V AUS/NZ
25012022007	Power Supply, Charger Switch Mode, 110 – 240 V BRZ
25012022008	Power Supply, Charger Switch Mode, 110 – 240 V ARG
25012022009	Power Supply, Charger Switch Mode, 110 – 240 V KOR

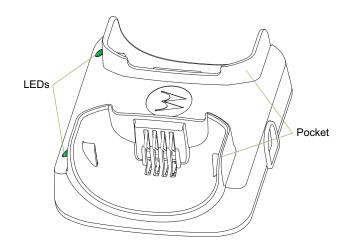
<sup>\*</sup> Charger only UL approved when shipped with this power supply. (Applicable for North America region only)







### **Overview of the DUC**



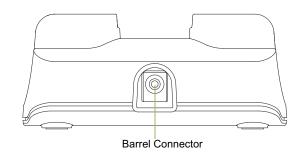


Figure 4.1: Dual-Unit Charger (Front View)

Figure 4.2: Dual-Unit Charger (Side View)

**25** 



### **Operating Instructions**

Dual-Unit Chargers are intended for use only with the authorized Motorola battery and power supplies listed in Table 4.1 and Table 4.2; usage with unauthorized products may prevent proper operation and may damage the device.

The battery charger will accommodate a WRSM with an attached battery or battery alone in either pocket. To charge a battery, use the following procedure:

- Plug the power supply cord into the barrel connector on the back of the charger.
- 2 Plug the power supply into the appropriate AC outlet. The charger LED will flash single green once to indicate a successful power-up.
- 3 Insert a WRSM with battery into the charger's pocket by:
  - Aligning the groove on each side of the battery with the corresponding raised rail on each side of the charger pocket.
  - Sliding the WRSM with battery into the charger pocket, ensuring complete contact between the charger and battery contacts.
- When the WRSM with battery is properly seated in the pocket, the charger LED will light in accordance with Table 4.3.
- Insert a battery into the charger's pocket by:
  - a Aligning the slot on each side of the battery with the corresponding raised rail on each side of the charger pocket.

- b Sliding the battery into the charger pocket, ensuring complete contact between the charger and battery contacts.
- 6 When the battery is properly seated in the pocket, the charger LED will light in accordance with Table 4.3.

NOTE: Charge new batteries overnight to ensure full charge. To minimize charge time, it is recommended to turn the WRSM OFF.

The Dual-Unit Charger is not designed to accommodate the alkaline battery tray.



Figure 4.3: Charging position of the WRSM on a Dual-Unit Charger

26



### **LED Light Indication**

When troubleshooting, always observe the color of the LED.

Table 4.3: Charger Status

LED Indication	Charger State
•	Charged at least 95%
Steady Green	
•	Rapid charge
Steady Red	
Single Flash Green	Charged successfully powered up and is ready for use
Slow Flash Green	Nearly charged at least 90%
	Battery under voltage recovery OR
Slow Flash Amber	Battery temperature is either too hot or too cold  – Wait to charge
	If battery temperature is within operating temperature, there may be a fault connection – DO NOT charge battery

Table 4.3: Charger Status (Continued)

	Battery under voltage recovery time out OR
Fast Flash Red	Loss of charge current control OR
	Excessive power supply voltage
	OR
	Fault connection happened
	<ul> <li>DO NOT charge battery</li> </ul>
$\circ$	If battery is inserted into a successfully powered up charger, battery may have bad contact with
Off	charger

**27** 



### **Troubleshooting**

### If There is Fast Flash Red Indication:

- 1 Confirm the battery being used with the WRSM is listed in Table 4.1 and is good in condition.
- 2 Confirm that the power supply being used with the WRSM is listed in Table 4.2 and is good in condition.
- 3 Remove the battery and restart the Dual-Unit Charger.
- 4 If the symptom persist, please send the Dual-Unit Charger to the nearest Service Center for further verification.

### If There is No LED Indication:

- 1 Check that the WRSM with battery or the battery is inserted correctly in the pocket.
- 2 Make sure that the power supply is plugged into an appropriate AC outlet and the LED on the power supply is on.
- 3 Ensure that the power supply cable is plugged securely into the charger socket.
- 4 Confirm that the battery being used with the WRSM is listed in Table 4.1.
- 5 If the symptom persist, please send the Dual-Unit Charger to the nearest Service Center for further verification.

28



# VEHICULAR CHARGER PMLN6716\_

# CHAPTER 5: VEHICULAR CHARGER PMLN6716\_



The Vehicular Charger is intended for use with the Motorola-approved Lithium-ion rechargeable batteries (listed in Table 5.1). The pocket is capable in charging Wireless Remote Speaker Microphone (WRSM) with battery or battery alone. An illuminated LED indicates the state of charging.

# PREPARING YOUR VEHICULAR CHARGER FOR USE

Take a moment to review the following:

Operational Guidelines	.page 30
Operating Specifications	.page 30
Motorola-Authorized Battery	.page 30
Overview of Vehicular Charger	.page 3
Installation	.page 32
Operating Instructions	.page 33
LED Light Indication	.page 38
Troubleshooting	.page 39

29



### **Operational Guidelines**

- Always remember to plug in the CLA first before inserting the WRSM with the attached battery or battery alone into the pocket.
- The Vehicular Charger is designed to be portable.
- The WRSM is designed to be functional even when charging takes place.

### **Operating Specifications**

Vehicular Charger

Input voltage range: 10.8 Vdc to 33.0 Vdc

Battery Charging Interface Max Output voltage: 4.20 Vdc

### **Motorola-Authorized Battery**

The battery listed in Table 5.1 is approved for use with the Vehicular Charger.

Table 5.1: Motorola-Authorized Battery

Kit (Part) Number	Platform/Description
PMNN4461_	Battery Standard Li-Ion 1750M1880T

30



### **Overview of Vehicular Charger**

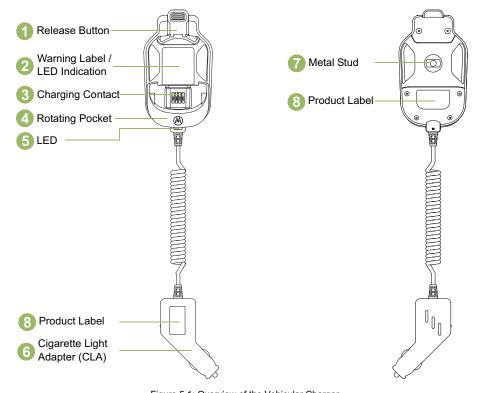


Figure 5.1: Overview of the Vehicular Charger

31



# Installation

## Install Mounting Bracket (HLN9073\_)

Refer to Figure 5.2 below and attach hang-up clip (1) to vehicle using two sheet metal screws and back-up plate provided. Place back-up plate (4) behind dashboard. Use flat-head screw (2) in top mounting hole and hex-washer screw (3) in bottom mounting hole. Be certain mounting screws fasten into holes in back-up plate.

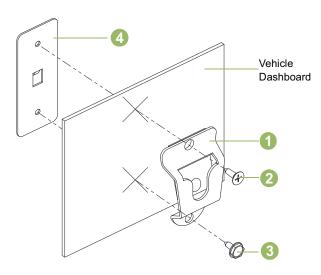


Figure 5.2: Installing the Mounting Bracket

Table 5.2: Mounting Brackets Description

Item	Motorola Part Number	Description	
1	0180757T98	Hang-up Clip	
2	0312002C01	Flat-Head Screw	
3	0312002A01	Hex-Washer Head Screw	
4	0780257N01	Back-up Plate	

**32** 



# **Operating Instructions**

Vehicular Chargers are intended for use only with the authorized Motorola battery listed in Table 5.1; usage with unauthorized products may prevent proper operation and may damage the device.

# Placing and Removing the Vehicular Charger from Mounting Bracket

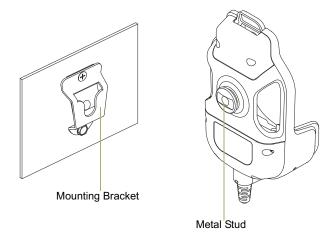


Figure 5.3: Removing Vehicular Charger from Mounting Bracket

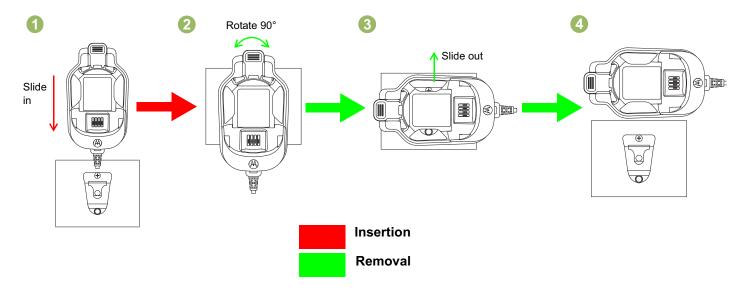


Figure 5.4: Placing and Removing the Vehicular Charger from the Mounting Bracket

# Mount the Charger

1 Slide in the stud onto the bracket as per step (1).

## Remove the Charger

- 1 Rotate the cradle horizontally (90 °) as per step (2) & (3).
- 2 Slide out the cradle as per step (4).

# Placing and Removing the WRSM or Battery to and from the Vehicular Charger

### Placing the WRSM or Battery to the Vehicular Charger

The Vehicular Charger will accommodate a WRSM with an attached battery or battery alone in pocket. To charge a battery, use the following procedure:

- 1 Plug in the CLA adaptor to CLA power supply. The charger LED will flash single green once to indicate a successful power-up.
- 2 Insert a WRSM with battery into the charger's pocket by:
  - Aligning the groove on each side of the battery with the corresponding raised rail on each si de of the charger pocket per Figure (R1).
  - Pressing on the front top surface of the WRSM according to the direction indicated in Figure (R2) to lock the WRSM into Vehicular Charger.
- 3 When the WRSM with battery is properly seated in the pocket, the charger LED will light in accordance with Table 5.3 per Figure (R3).
- 4 Insert a battery into the charger's pocket by:
  - a Aligning the groove on each side of the battery with the corresponding raised rail on each si de of the charger pocket per Figure (B1).
  - Pressing on the front top surface of the battery according to the direction indicated in Figure (B2) to lock the battery into Vehicular Charger.

When the battery is properly seated in the pocket, the charger's LED will light in accordance with Table 5.3 per Figure (B3).

### Removing the WRSM or Battery from the Vehicular Charger

The Vehicular Charger will accommodate a WRSM with an attached battery or battery alone in pocket. To stop charging a battery, use the following procedure:

- 1 Unplug the CLA from the vehicle's cigar lighter socket.
- 2 Remove a WRSM with battery from the charger's pocket by:
  - a Pressing on the Vehicular Charge's release button to unlatch the battery per Figure (R3).
  - b Remove the WRSM from the pocket by sliding the WRSM upward per Figure (R2).
- 3 Remove a battery from the charger's pocket by:
  - a Pressing on the Vehicular Charge's release button to unlatch the battery per Figure (B3).
  - Remove the battery from the pocket by sliding the battery upward per Figure (B2).

35



## Attach and Remove WRSM

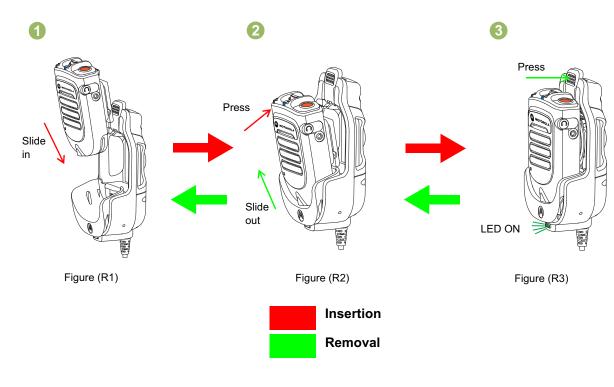


Figure 5.5: Attaching and Removing the WRSM from the Vehicular Charger

# Attach and Remove Battery

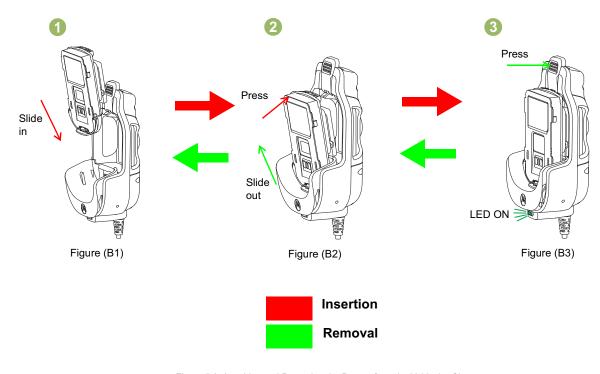


Figure 5.6: Attaching and Removing the Battery from the Vehicular Charger

**37** 



## Swivel Clip Position When Placing Onto Vehicular Charger

The Vehicular Charger will accommodate for both swivel clips:

- Standard swivel clip (PMLN6743\_) Any rotational position
- D-ring swivel clip (42009312001) Horizontal position

Rotate D-ring swivel clip to horizontal position before inserting the WRSM or battery into the Vehicular Charger.

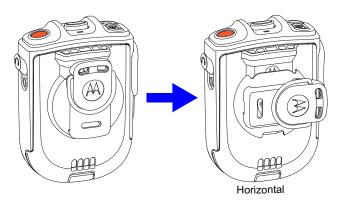


Figure 5.7: Swivel Clip Position

# **LED Light Indication**

When troubleshooting, always observe the color of the LED.

Table 5.3: Charging Status

LED Indication	Charger State
Steady Green	Charged at least 95%
Steady Red	Rapid charge
Single Flash Green	Charged successfully powered up and is ready for use
Slow Flash Green	Nearly charged at least 90%
Slow Flash Amber	Battery under voltage recovery OR Battery temperature is either too hot or too cold - Wait to charge
	If battery temperature is within operating temperature, there may be a fault connection – DO NOT charge battery

38

Englisi



Table 5.3: Charging Status (Continued)

Fast Flash Red	Battery under voltage recovery time out OR Loss of charge current control OR
	Excessive power supply voltage OR
	Fault connection happened  – DO NOT charge battery
Off	If battery is inserted into a successfully powered up charger, battery may have bad contact with charger

# **Troubleshooting**

### If There is Fast Flash Red Indication:

- 1 Confirm the battery being used with the WRSM is listed in Table 5.1 and is good in condition.
- 2 Remove the battery and restart the Vehicular Charger.
- 3 If the symptom persist, please send the Vehicular Charger to the nearest Service Center for further verification.

### If There is No LED Indication:

- 1 Check that the WRSM with battery or the battery is inserted correctly in the pocket.
- 2 Make sure that the CLA adapter is plugged into a CLA power source and the LED on the CLA adapter is on.
- 3 Confirm that the battery being used with the WRSM is listed in Table 5.1.

39



# **NOTES**

VEHICULAR CHARGER PMLN6716\_

40



# **CHAPTER 6: REPLACEABLE PARTS**

Other than the replaceable parts listed below, the PMMN4095\_, PMMN4097\_, PMLN6714\_ and PMLN6716\_ are not repairable.

The following parts are available:

Table 6.1: Replaceable Parts

Part Number	Description
PMLN6743_	Swivel Clip
42009312001	D-Ring Swivel Clip
PMKN4162_	Mobile Microphone with Bluetooth Gateway Radio Interface Cable
PMKN4163_	Mobile Microphone with Bluetooth Gateway USB Programmable Cable
PMNN4461_	Battery Standard Li-Ion 1750M1800T
25012022001*	Power Supply, Charger Switch Mode, 110 – 240 V US/NA/JPN/TAIWAN
25012022002	Power Supply, Charger Switch Mode, 110 – 240 V EURO
25012022003	Power Supply, Charger Switch Mode, 110 – 240 V UK
25012022004	Power Supply, Charger Switch Mode, 110 – 240 V CHINA
25012022006	Power Supply, Charger Switch Mode, 110 – 240 V AUS/NZ

Table 6.1: Replaceable Parts

Part Number	Description
25012022007	Power Supply, Charger Switch Mode, 110 – 240 V BRZ
25012022008	Power Supply, Charger Switch Mode, 110 – 240 V ARG
25012022009	Power Supply, Charger Switch Mode, 110 – 240 V KOR
HLN9073_	Microphone Hang-up Clip
KT-SB1X- LANYD3	Standard Lanyard with Velcro

<sup>\*</sup> Charger only UL approved when shipped with this power supply. (Applicable for North America region only)

41



# CHAPTER 7: OPEN SOURCE SOFTWARE LEGAL NOTICE

This Motorola Solutions Product contains Open Source Software. For information regarding licenses, acknowledgments, required copyright notices and other usage terms, refer to the documentation for this Motorola Solutions Product at:

https://businessonline.motorolasolutions.com

Go to: Resource Center > Product Information > Manual > Accessories > Remote Speaker Microphone

# **CHAPTER 8: SERVICE AND SUPPORT**

DO NOT disassemble the PMMN4095\_, PMMN4097\_, PMLN6714\_ and PMLN6716\_; they are not repairable. Order replacement parts listed in "REPLACEABLE PARTS" on page 41.

Please contact Motorola Solutions Customer Care as shown in Table 8.1 below for ordering or any technical troubleshooting assistance.

Table 8.1: Motorola Solutions Customer Care Phone Numbers

Regions	Phone Number	
US and Canada	1-800-927-2744	
Latin America	(5) 257-6700 or (571) 602-1111	
European (Repair and Service Centre)	+49-30-6686-1555	
Asia	1-800-88-0089 (Contact your Motorola Dealer for Support)	

# **CHAPTER 9: WARRANTY**

Contact your Motorola Solutions dealer for detailed information on the standard warranty. The workmanship warranty guarantees against defects in workmanship under normal use and service.

**NOTE:** Warranty is void after customer replacement of any parts other than replacement parts listed.

Table 9.1: Warranty Period

Name	Year
Wireless Remote Speaker Microphone PMMN4095_	One (1) Year
Mobile Microphone with Bluetooth Gateway PMMN4097_	One (1) Year
Dual Unit Charger PMLN6714_	One (1) Year
Vehicular Charger PMLN6716_	One (1) Year
Wireless Remote Speaker Microphone Battery PMNN4461_	One (1) Year

# **Limited Warranty**

### MOTOROLA COMMUNICATION PRODUCTS

### I. WHAT THIS WARRANTY COVERS AND FOR HOW LONG:

MOTOROLA SOLUTIONS, INC. ("MOTOROLA") at its option, will at no charge either repair the Product (with new or reconditioned parts), replace it (with a new or reconditioned Product), or refund the purchase price of the Product during the warranty period provided it is returned in accordance with the terms of this warranty. Replaced parts or boards are warranted for the balance of the original applicable warranty period. All replaced parts of Product shall become the property of MOTOROLA.

This express limited warranty is extended by MOTOROLA to the original end user purchaser only and is not assignable or transferable to any other party. This is the complete warranty for the Product manufactured by MOTOROLA. MOTOROLA assumes no obligations or liability for additions or modifications to this warranty unless made in writing and signed by an officer of MOTOROLA.

Unless made in a separate agreement between MOTOROLA and the original end user purchaser, MOTOROLA does not warrant the installation, maintenance or service of the Product.

MOTOROLA cannot be responsible in any way for any ancillary equipment not furnished by MOTOROLA which is attached to or used in connection with the Product, or for operation of the Product with any ancillary equipment, and all such equipment is expressly excluded from this warranty. Because each system which may use the Product is unique, MOTOROLA disclaims liability for range, coverage, or operation of the system as a whole under this warranty.

### **II. GENERAL PROVISIONS:**

This warranty sets forth the full extent of MOTOROLA'S responsibilities regarding the Product. Repair, replacement or refund of the purchase price, at MOTOROLA's option, is the exclusive remedy. THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. IN NO EVENT SHALL MOTOROLA BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USER OR INABILITY TO USE SUCH PRODUCT, TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW.

### **III. STATE LAW RIGHTS:**

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LIMITATION ON HOW LONG AND IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION OR EXCLUSIONS MAY NOT APPLY.

This warranty gives specific legal rights, and there may be other rights which may vary from state to state.

### IV. HOW TO GET WARRANTY SERVICE:

You must provide proof of purchase (bearing the date of purchase and Product item serial number) in order to receive warranty service and, also, deliver or send the Product item, transportation and insurance prepaid, to an authorized warranty service location. Warranty service will be provided by MOTOROLA through one of its authorized warranty service locations. If you first contact the company which sold you the

Product (e.g., dealer or communication service provider), it can facilitate your obtaining warranty service. You can also call MOTOROLA at 1-800-927-2744 US/Canada.

### V. WHAT THIS WARRANTY DOES NOT COVER

- A Defects or damage resulting from use of the Product in other that its normal and customary manner.
- B Defects or damage from misuse, accident, water, or neglect.
- C Defects or damage from improper testing, operation, maintenance, installation, alteration, modification, or adjustment.
- D A Product subjected to unauthorized Product modifications, disassembles or repairs (including, without limitation, the addition to the Product of non-MOTOROLA supplied equipment) which adversely affect performance of the Product or interfere with MOTOROLA's normal warranty inspection and testing of the Product to verify any warranty claim.
- E Product which has had the serial number removed or made illegible.
- F Freight costs to the repair depot.
- G A Product which, due to illegal or unauthorized alteration of the software/firmware in the Product, does not function in accordance with MOTOROLA's published specifications or the FCC certification labeling in effect for the Product at the time the Product was initially distributed from MOTOROLA.
- H Scratches or other cosmetic damage to Product surfaces that does not affect the operation of the Product.
- I Normal and customary wear and teat.

VI. PATENT AND SOFTWARE PROVISIONS:

MOTOROLA will defend, at its own expense, any suit brought against the end user purchaser to the extent that it is based on a claim that the Product or parts infringe a United States patent, and MOTOROLA will pay those costs and damages finally awarded against the end use purchaser in any such suit which are attributable to any such claim, but such defense and payments are conditioned on the following:

- A That MOTOROLA will be notified promptly in writing by such purchaser of any notice of such claim;
- B That MOTOROLA will have sole control of the defense of such suit and all negotiations for its settlement or compromise; and
- C Should the Product or parts become, or in MOTOROLA's opinion be likely to become, the subject of a claim of infringement of a United States patent, that such purchaser will permit MOTOROLA, at its option and expense, either to produce for such purchaser the right to continue using the Product or parts or to replace or modify the same so that it becomes non-infringing or to grant such purchaser a credit for the Product or parts as depreciated and accept its return. The depreciation will be an equal amount per year over the lifetime of the Product or parts as established by MOTOROLA. MOTOROLA will have no liability with respect to any claim of patent infringement which is based upon the combination of the Product or parts furnished hereunder with software, apparatus or devices not furnished by MOTOROLA, nor will MOTOROLA have any liability for the use of ancillary equipment or software for furnished by MOTOROLA which is attached to or used in connection with the Product. The foregoing states the entire liability of MOTOROLA with respect to infringement of patents by the Product or any parts thereof.

Laws in the United States and other countries preserve for MOTOROLA certain exclusive rights for copyrighted MOTOROLA software such as the exclusive rights to reproduce in copies and distribute copies of such MOTOROLA software. MOTOROLA software may be used in only the Product in which the software was originally embodied and such software in such Product may not be replaced, copied, distributed, modified in any way, or used to produce any derivative thereof. No other use including, without limitation, alteration, modification, reproduction, distribution, or reverse engineering of such MOTOROLA software or exercise of rights in such MOTOROLA software permitted. No license is granted by implication, estoppel or otherwise under MOTOROLA patent rights or copyrights.

### VII. GOVERNING LAW:

This Warranty is governed by the laws of the State of Illinois, U.S.A.

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. © 2014 Motorola Solutions, Inc. All rights reserved.