



CLP Series TWO-WAY RADIO User Guide

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Batteries, Chargers, and Audio Accessories Safety Information

This document contains important safety and operating instructions. Read these instructions carefully and save them for future reference. Before using the battery charger, read all the instructions and cautionary markings on:

- the charger
 - the battery
 - the radio attached with battery
- 1 To reduce risk of injury, charge only the rechargeable Motorola Solutions-authorized batteries. Charging the other batteries may cause explosion, personal injury, and damage.
 - 2 Use of accessories not recommended by Motorola Solutions may result in fire, electric shock, or injury.
 - 3 To reduce damage to the electric plug and cord, pull by plug rather than the cord when disconnecting the charger.
 - 4 An extension cord should not be used unless necessary. Use of an improper extension cord may result in fire and electric shock. If an extension cord must be used, make sure that the cord size is 18 AWG for lengths up to 2.0 m (6.5 feet), and 16 AWG for lengths up to 3.0 m (9.8 feet).
 - 5 Do not operate the charger if it has been broken or damaged in any way. Take it to any qualified Motorola Solutions service representatives.
 - 6 Do not disassemble the charger; it is not repairable and replacement parts are not available. Disassembly of the charger may result in risk of electrical shock or fire.
 - 7 To reduce risk of electric shock, unplug the charger from the AC outlet before attempting any maintenance or cleaning.

Operational Safety Guidelines

- Turn off the radio while charging.
- The charger is not suitable for outdoor. Use only in dry locations or conditions.
- Connect charger to an appropriately fused and wired supply of the correct voltage (as specified on the product only).
- Disconnect charger from line voltage by removing main plug.
- Connect the equipment to an outlet which is easy to access and near.
- For equipment using fuses, replacements must comply with the type and rating specified in the equipment instructions.
- Maximum ambient temperature around the power supply equipment must not exceed 40 °C (104 °F).
- Power output from the power supply unit must not exceed the ratings stated on the product label located at the bottom of the charger.
- Make sure the cord is not stepped on, tripped over, subjected to water, damage, or stress.

Acoustic Safety



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

To protect your hearing:

- Use the lowest volume necessary to do your job.
- Increase the volume only if you are in noisy surroundings.
- Reduce the volume before connecting headset or earpiece.
- Limit the amount of time you use headsets or earpieces at high volume.
- 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.

FCC Licensing Information

This device complies with Parts 90 and 15 of the Federal Communications Commission (FCC) Rules. Operation is subject to the condition that this device does not cause harmful interference. The radio operates on radio frequencies that are regulated by the Federal Communications Commission (FCC). To transmit on these frequencies, you are required to have a license issued by the FCC. Application is made available on FCC Form 601 and Schedules D, H, and Remittance Form 159.

To obtain these FCC forms, request document 000601 which includes all forms and instructions. If you wish to have the document faxed, mailed or have questions, use the following contact information.

Fax

Contact the Fax-On-Demand system at 1-202-418-0177

Mail

Call the FCC forms hotline at 1-800-418-FORM or 1-800-418-3676

Contact

For questions regarding FCC license, contact 1-888-CALL-FCC, 1-888-225-5322, or <http://www.fcc.gov>.

Before filling out your application, you must decide which frequency you can operate on. Refer to [Radio Frequency and Code Chart on page 43](#) for frequency information. For questions on determining the radio frequency, call Motorola Solutions Product Services at: 1-800-448-6686. Changes or modifications not expressly approved by Motorola Solutions may void the user authority granted by the FCC to operate this radio and should not be made. To comply with FCC requirements, transmitter adjustments should be made only by or under the supervision of a person certified as technically qualified to perform transmitter maintenance and repairs in the private land mobile and fixed services as certified by an organization representative of the user of those services.

Replacement of any transmitter component such as crystal, semiconductor, and others not authorized by the FCC equipment authorization for this radio could violate FCC rules.



NOTICE: Use of this radio outside the country where it was intended to be distributed is subject to government regulations and may be prohibited.

Supplier's Declaration of Conformity

Supplier's Declaration of Conformity
Per FCC CFR 47 Part 2 Section 2.1077(a)



Responsible Party

Name: Motorola Solutions, Inc.

Address: 1303 East Algonquin Road, Schaumburg, IL 60196-1078, U.S.A.

Phone Number: 1-800-927-2744

Hereby declares that the product:

Model Name: **CLP1010e/CLP1080e/CLP1013e/CLP1083e**

conforms to the following regulations:

FCC Part 15, subpart B, section 15.107(a), 15.107(d), and section 15.109(a)

Class B Digital Device

As a personal computer peripheral, 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.



NOTICE:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or TV technician for help.

Radio Frequency Exposure Safety Standards

Product Safety and RF Exposure Compliance.



CAUTION:

Before using the radio, read the operating instructions for safe usage contained in the Product Safety and RF Exposure booklet contained with your radio.

ATTENTION!

This radio is restricted to Occupational use only to satisfy FCC RF energy exposure requirements. Before using the radio, read the RF Energy Exposure and Product Safety Guide for Portable Two-Way Radios which contains important operating instructions for safe usage and RF energy awareness and control for Compliance with applicable standards and Regulations.

For a list of Motorola Solutions-approved antennas, batteries, and other accessories, visit the following website:

<http://www.motorolasolutions.com/CLP>

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. 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 radio transmitter has been approved by Industry Canada to operate with Motorola Solutions-approved antenna with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Notice to Users

This device complies with Part 15 of the FCC rules per the following conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.



CAUTION: Changes or modifications made to this device, not expressly approved by Motorola Solutions, could void the authority of the user to operate this equipment.

Canada Licensing Information

Notice to Users (Industry Canada)

The operation of your Motorola Solutions radio is subject to the Radiocommunications Act and must comply with rules and regulations of the Federal Government's department of Industry Canada. Industry Canada requires that all operators using Private Land Mobile frequencies obtain a radio license before operating their equipment.

The License Application

- 1 Fill in the items as per the instructions. If you need additional space for any item use the reverse side of the application.
- 2 Be sure to print legibly
- 3 Make a copy for your files.
- 4 Prepare a cheque or money made out to the "Receiver General for Canada", for an amount, which is on the following schedule, for each radio purchased. (License is renewed on April 1st each year, and issued for a period of 12 months).
- 5 Mail your completed application, along with your cheque or money order to the closest Industry Canada District office, according to the list on pages.

To obtain the latest Canadian License Application form, please go to http://www.ic.gc.ca/ic_wp-pa.htm.

Introduction

This user guide covers the operation of your radios.

Your dealer or system administrator may have customized your radio for your specific needs. Check with your dealer or system administrator for more information.

You can consult your dealer or system administrator about the following:

- Is your radio programmed with any preset conventional channels?
- Which buttons have been programmed to access other features?
- What optional accessories may suit your needs?
- What are the best radio usage practices for effective communication?
- What maintenance procedures that helps promote longer radio life?

Package Content

This section provides information regarding package content for the radio.

Your product package contains the following products and manuals:

- CLP Series Two-way Radio
- Swivel Belt Clip Holster
- Lithium-Ion Battery and Battery Door
- Drop-In Tray Charger with Transformer¹
- Audio Accessory¹
- Audio Jack Cover
- Quick Start Guide, Chargers Instructions Leaflet, RF Safety Booklet

For product information, refer to <https://learning.motorolasolutions.com>.

For product related questions, contact the followings:

- 1-800-448- 6686 in the USA
- 1-800-461-4575 in Canada
- 1-866-522-5210 on your TTY (Text Telephone)

This user guide covers the following models:

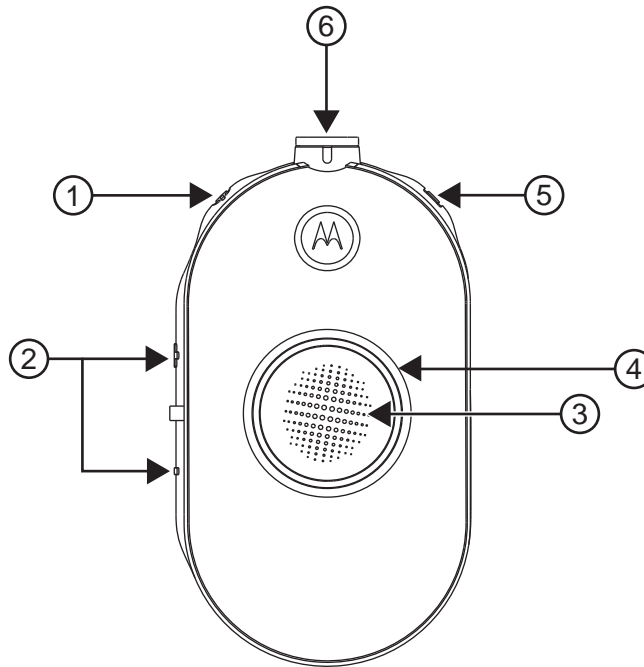
| Model | Frequency Band | Transmit Power | Repeater Compatibility | No. of Channels |
|----------|----------------|----------------|------------------------|-----------------|
| CLP1010e | UHF | 1 W | Yes | 1 |
| CLP1080e | | | | 8 |
| CLP1013e | | | | 1 |
| CLP1083e | | | | 8 |

¹ Applicable to non-bulk models only.

Radio Overview

This chapter explains the buttons and functions of the radio.

Figure 1: Radio Controls



| Item Number | Description |
|-------------|--------------------------------------|
| 1 | Power and Battery button |
| 2 | Volume Control (+/-) and Mute button |
| 3 | Push-to-Talk (PTT) button |
| 4 | Smart Status Glow Ring |
| 5 | Menu button |
| 6 | Accessory Connector |

Getting Started

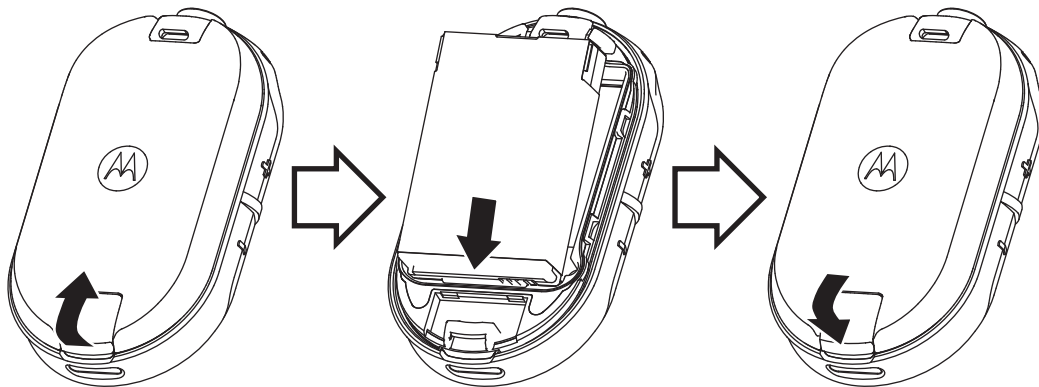
This section helps you to get familiar with the basic operations of the radio.

Installing the Battery

Procedure:

- 1 At the bottom of the battery door, lift the latch up and remove the battery door of the radio.
- 2 Align the battery contacts to the tabs of the battery compartment.
- 3 Insert the end with the battery contacts before pressing the battery down to secure in place.
- 4 Place the battery door on the radio and push the latch down to lock the battery door.

Figure 2: Battery Installation



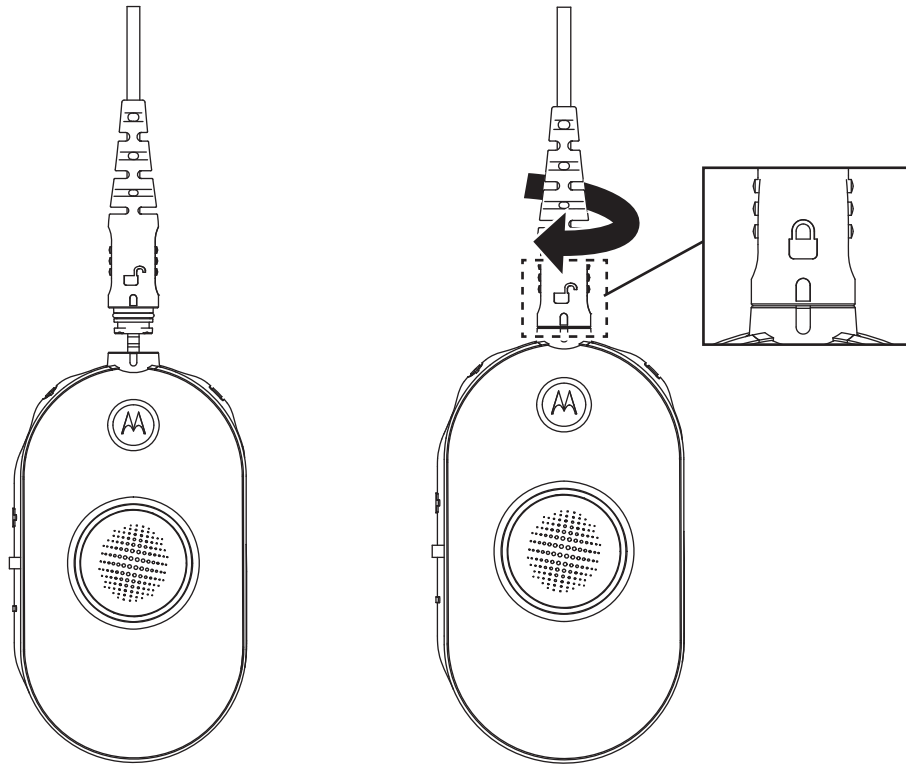
Connecting Wired Audio Accessory

Prerequisites: Turn the radio off.

Procedure:



- 1 Plug the audio accessory into the radio with the unlock icon on the audio accessory facing the front of the radio.
Ensure the indicator on the audio accessory and the radio is aligned.
- 2 Turn the audio accessory plug until the lock icon on the plug is facing the front of the radio and the indicators are aligned.

Figure 3: Connecting Wired Audio Accessory



- 3 Turn the radio on.
- 4 Press either the **Battery Status**, **Menu**, or **Volume Control** button to check for audio through the audio accessory.

Table 1: Top LED Configuration if Wired Audio Accessory is not Connected or Removed

| User Mode | LED Status | Color |
|--|--|---|
| Turn on radio without an audio accessory plugged in. | Solid Blue |  |
| Audio accessory removed while radio is on. | Red/purple blinks until an audio accessory is plugged in |  |



NOTICE:

Lower the radio volume before placing the audio accessory in or near your ear.

The CLP Series radios offer various audio accessories. For detailed audio accessories list, refer to <http://www.motorolasolutions.com/CLP> for information on approved accessories.

Turning the Radio On or Off

Procedure:

- 1 To turn on the radio, press and hold the **Power** and **Battery** button until you hear a short tone and the Smart Status Glow Ring illuminates.
- 2 To turn off the radio, press and hold the **Power** and **Battery** button until you hear a short tone and the Smart Status Glow Ring indicator blinks once.

Adjusting the Volume

Procedure:

- 1 To increase the volume, press the **(+)** button.



NOTICE: Radio has 15 increments of volume.

- 2 To decrease the volume, press the **(-)** button.

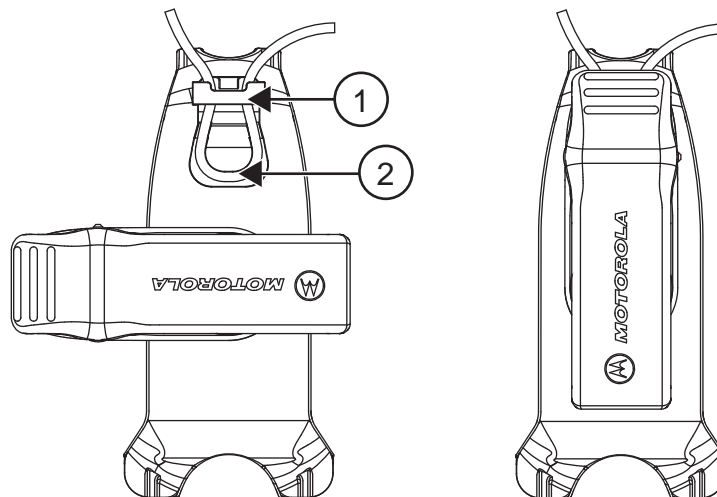
Inserting and Removing the Swivel Belt Clip Holster

The radios offer various flexible carrying accessories. For Motorola Solutions approved accessories list, refer to <http://www.motorolasolutions.com/CLP>.

Procedure:

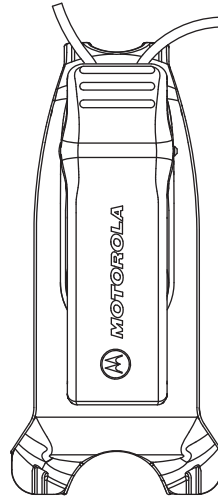
- 1 To insert the radio into the holster, perform the following steps:
 - a Slide the bottom of the radio into the holster.
 - b Snap the top of the holster into the radio around the accessory connector.
- 2 To remove radio from the holster, pull either the top or bottom tab and pull the radio from the holster.
- 3 Make a small loop in the cord and pass the cord through the cord guide. Nest the cord in the U-shaped groove and pull tight to lock the cord in place.

Figure 4: Swivel Belt Clip Holster



| Item Number | Description |
|-------------|-----------------|
| 1 | Cord Guide |
| 2 | U-Shaped Groove |

- 4 Turn the belt clip to the position as needed.



Transmitting and Receiving

Procedure:

- 1 To transmit calls, perform one of the following actions:
 - Press and hold the **PTT** button on the front of the radio.
 - Press and hold the **PTT** button on the wired audio accessory with the inline **PTT** button.
- 2 Speak clearly into the microphone on the audio accessory.
- 3 Release the **PTT** button to listen.
- 4 To receive calls, listen through the earpiece and press the **PTT** button to respond.

Talk Range

Table 2: Talk Range

| Application | Industrial (Inside steel/ concrete industrial build- ings) | Multi-Level (Inside multi-lev- el buildings) |
|---------------|--|---|
| Unit to Unit | Up to 100,000 square feet | Up to 10 floors |
| With Repeater | Up to 250,000 square feet | Up to 20 floors |

Menu Setting

Procedure:

- 1 To navigate through the menu settings, press the **Menu** button.
- 2 To exit the menu, short press the **PTT** button or wait for three seconds.

Operations Using Menu Settings

This section explains operations using the menu settings.



NOTICE:

It is not necessary to wait for the voice prompt to be completed before continuing with pressing the next button.

If you are in the menu mode, short press **PTT** or wait 3 seconds to exit the menu.

Procedure:

- 1 Changing channel:
 - a Press **Menu** button to navigate to **Channel**.
 - b Press the **(+)** or the **(-)** button to change channel.
- 2 Entering Monitor Mode:
 - a Press **Menu** button to navigate to **Monitor**.
 - b Press the **(+)** to activate or the **(-)** button to deactivate monitor.
- 3 Entering Scan Mode:
 - a Press **Menu** button to navigate to **Scan**.
 - b Press the **(+)** to activate or the **(-)** button to deactivate scan.
- 4 Sending Call Tone:
 - a Press **Menu** button to navigate to **Call Tone**.
 - b Press the **(+)** or the **(-)** button to send call tone.
Enabled through Customer Programming Software (CPS).

Selecting Channels








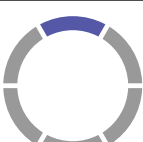

Procedure:

- 1 Press the **Menu** button.
You hear a voice prompt to change channel by pressing the **(+)** or **(-)** button.
- 2 Select the required channel.
The LED indicates the color of the new channel.
- 3 Press the **PTT** button to confirm or the channel is activated after three seconds hang time.

Default Channel Settings for CPS

The table describes the default channel settings for Customer Programming Software (CPS).

Table 3: Channel Settings for CPS

| CLP1010e & CLP1013e Single-Channel Models | | | CLP1080e & CLP1083e Multi-Channel Models | | |
|---|---|-------|--|---|--------|
| Channel | LED Status | Color | Channel | LED Status | Color |
| 1 |  | Red | 1 |  | Red |
| | | | 2 |  | Green |
| | | | 3 |  | Yellow |
| | | | 4 |  | Blue |
| | | | 5 |  | Purple |
| | | | 6 |  | White |
| | | | 7 |  | Aqua |
| | | | 8 |  | Orange |

LED Indicators

| Feature | LED Indicator |
|------------------------------|---|
| Monitor mode | Solid per channel color. |
| Call tone | Momentary solid per channel color. |
| Scan | Cycles through in clockwise direction with one LED lighting up at one time. LED color changes on the top slot when each cycle is completed. |
| Turn on or off | Top red and the remaining white LED illuminates briefly. |
| Advanced radio configuration | Blinking green. |
| Audio jack feedback | LED blinks blue when no accessory at power-up. LED blinks red and purple fast alternatively when accessory is unplugged. |

Volume LED

When volume is increased, Smart Status Glow Ring LED lights up in a clockwise direction from the bottom left to the bottom right of the LED ring.

The followings are the three levels of LED brightness for each LED when volume is increased:

- Dim
- Medium
- Maximum brightness

Monitoring Channels

Procedure:

- 1 To activate the monitor selection mode, press the **Menu** button and navigate to **Monitor Selection**.

If the monitor is off, you hear a voice prompt to activate the monitor mode by pressing the **+** or **-** button.

- 2 Press **+** or **-** button to activate or deactivate the monitor mode.

When the monitor mode is on, you hear static if no activity is present or audio if channel activity is present.

- 3 To engage the monitor mode, enable monitor through the menu and let the menu time out.
- 4 To exit the **Monitor** mode, press the **PTT** button.

Scan

You can scan up to eight channels on CLP1080e and CLP1083e models.

When the radio detects activity, it stops scanning and locks in on the active channel. This allows you to listen and talk to the person transmitting without changing channels.

Scanning Radio Channels

Procedure:

- 1 To navigate to Scan mode, press the **Menu** button.
If the scan is off, you hear a voice prompt to activate Scan by pressing the **+** or **-** button.
- 2 To activate scan, press **+** or **-** button.
When scan is on, you hear a voice prompt to deactivate Scan by pressing the **+** or **-** button.
- 3 To deactivate scan, press **+** or **-** button.

Dynamic Talkaround Scan

This feature maximizes communication coverage for an on-site repeater enabled on two way radio systems.

Dynamic Talkaround Scan is enabled on a repeater channel through the Customer Programming Software (CPS). The feature gives the radio the ability to scan the transmit and receive frequencies of a repeater channel.



NOTICE: The feature is given higher priority than the scan mode. If the Dynamic Talkaround Scan and Scan are enabled on the home channel, then the radio can only support the Dynamic Talkaround Scan.

Sending Call Tones

Procedure:

- 1 To navigate to **Call Tone**, press the **Menu** button.
- 2 To transmit a selected call tone, press **+** or **-**.



NOTICE:
Six call tones are available.

This feature is enabled through Customer Programming Software (CPS).

Muting the Radio

The **Mute Headset Volume** setting is configured through Customer Programming Software (CPS).

Procedure:

- 1 To lower or mute the headset volume, press and hold **+** or **-** button.
You hear a "Mute" voice prompt from the radio.
- 2 To unmute the headset volume, press any buttons.
You hear a "Unmute" voice prompt from the radio.

Escalate Call

Escalate Call feature allows you to switch to Escalate Call Channel and send call tone on the Escalate Call Channel.

To enable the Escalate Call feature, Escalate Call Channel must be configured in Customer Programming Software (CPS). Long press menu button activates the Escalate Call feature and automatically send Escalate Call Tone on Escalate Call Channel. The Escalate Call Hangtime starts

after every call ends. Radio stays in Escalate Call Hangtime for a predefined period. Escalate Call ends when the hangtime expires and radio returns to the previous channel. The hangtime is configured through CPS.

Pressing the **PTT** button during Escalate Call Hangtime allows you to talk on the channel. Escalate Call Hangtime restarts after the voice call is ended and you can receive calls from other radios on the Escalate Call Channel.

Your radio follows the selected channel behavior except the call tone and no channel announcement upon switching to Escalate Call Channel. The call tone is configured through CPS by selecting one of the six call tones.

To exit Escalate Call Channel before hangtime expires, short press either **On**, **Off**, **Menu** button, or long press **Menu** button.

Battery and Charger

This chapter describes the battery and charger feature for the radio.

Battery Specifications

The radio comes equipped with a rechargeable Li-Ion battery. To ensure optimum capacity and performance, the battery should be charged before initial use.

Battery life is determined by several factors. The critical ones are overcharging of batteries and the average depth of discharge each cycle. Typically, the greater the overcharge and the deeper the average discharge, the fewer cycles a battery lasts. For example, a battery which is overcharged and discharged 100 % for several times a day, lasts fewer cycles than a battery that overcharges less and is discharged to 50 % per day. Battery with minimal overcharge and has an average of 25 % discharge, lasts even longer.

Motorola Solutions batteries are designed specifically to be used with a Motorola Solutions charger and vice versa. Charging batteries with non-Motorola Solutions equipment may lead to battery damage and void the battery warranty. Whenever possible, maintain the battery temperature to 77 °F (25 °C) (room temperature). Charging a cold battery (below 50 °F [10 °C]) may result in leakage of electrolyte and ultimate failure of the battery. Charging a hot battery (above 95 °F [35 °C]) results in reducing discharge capacity and affecting the performance of the radio. Motorola Solutions rapid-rate battery chargers contain a temperature-sensing circuit to ensure that batteries are charged within the temperature limits.

Battery Life

The estimated battery life is 16 hours based on 5 % transmit, 5 % receive, and 90 % standby (standard duty cycle).

Battery Recycling and Disposal

Li-ion rechargeable batteries can be recycled. However, recycling facilities may not be available in all areas. Under various U.S. state laws and the laws of several other countries, batteries must be recycled and cannot be disposed of in landfills or incinerators. Contact your local waste management agency for specific requirements and information in your area. Motorola Solutions fully endorses and encourages the recycling of Li-Ion batteries.

In the U.S. and Canada, Motorola Solutions participates in the nationwide Call2Recycle program for battery collection and recycling. Many retailers and dealers participate in this program. For the location of the drop-off facility closest to you, access Call2Recycle's Internet web site at <https://www.call2recycle.org/> or call 1-800-8-BATTERY. This internet site and telephone number also provide other useful information concerning recycling options for consumers, businesses, and governmental agencies.

Removing the Li-Ion Battery

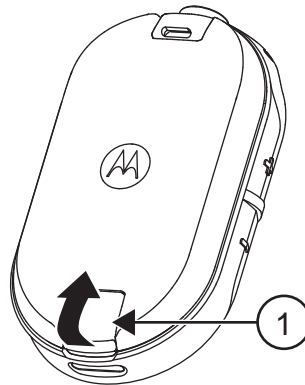
Prerequisites: Ensure the radio is turned off.

Procedure:

- 1 At the bottom of the battery door, lift the latch up and remove the battery door of the radio.

- 2 Pull the battery away from the radio.

Figure 5: Battery Removal



| Item Number | Description |
|-------------|---------------|
| 1 | Battery Latch |

Power Supply, Adapter, and Drop-in Tray Charger

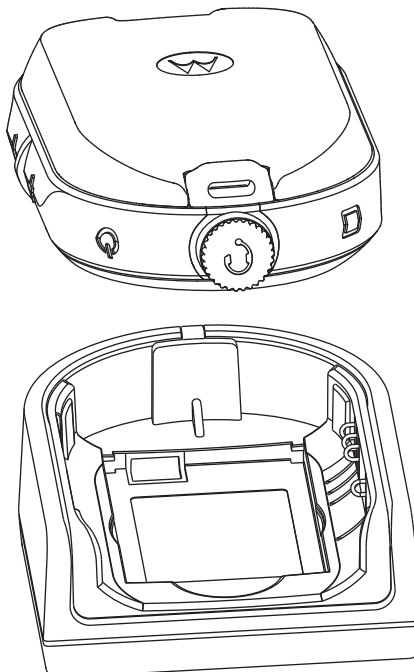
The radio is packaged with one Drop-in Tray Charger with a transformer.



NOTICE: Applicable to non-bulk models only.

For information on accessories, see [Accessories on page 51](#).

Figure 6: Power Supply, Adapter, and Drop-in Tray Charger



Stand-Alone Battery

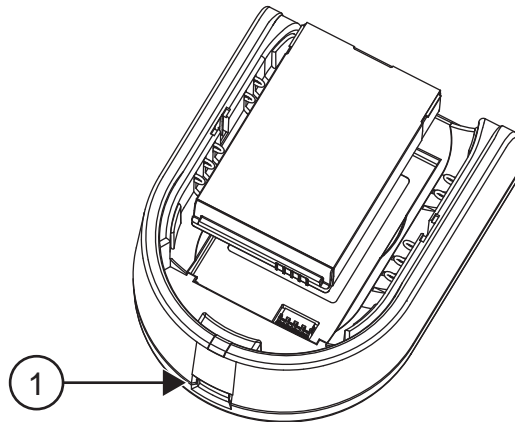
The battery can be charged as a stand-alone battery.

The battery is charged by using either a Single Unit Charger (SUC) or a Multi-Unit Charger (MUC).



NOTICE: When acquiring additional chargers or power supplies, ensure that you have a similar drop-in tray chargers and power supplies sets. For more information on accessories, see [Accessories on page 51](#).

Figure 7: Stand-Alone Battery



| Item Number | Description |
|-------------|----------------|
| 1 | Micro-USB port |

Charging a Stand-Alone Battery with the Drop-in Tray SUC

Procedure:

- 1 To charge the battery, insert the connector of the power supply into the micro Universal Serial Bus (USB) port on the front of the drop-in tray charger.
- 2 Connect the power supply to a proper AC outlet.
- 3 Insert the battery into the tray, with the inside surface of the battery facing the front of the charger. See [Stand-Alone Battery on page 28](#).
- 4 Ensure that the slots in the battery are correctly engaged in the charger.

Charging a Stand-Alone Battery with the Drop-in Tray MUC-Optional Accessory

Procedure:

- 1 Place the charger on a flat surface or mount it on the wall.
- 2 Insert the power cord plug into the jack on the MUC.
- 3 Plug the cord into an AC outlet and then into the charger.
- 4 Insert the battery into the charging pocket with the inside surface of the battery facing the front of the charger.
- 5 Ensure that the slots in the battery are correctly engaged in the charger.

Estimated Charging Time

The following tables provide the estimated charging time of the battery.

Table 4: Estimated Charging Time

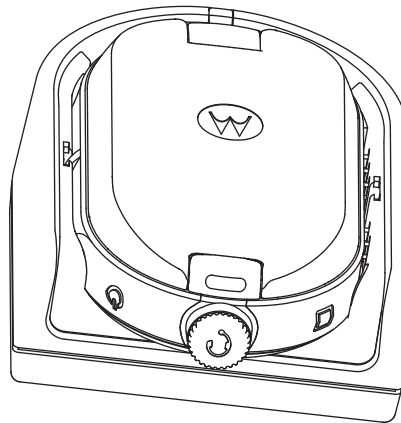
| Charging Solution | High Capacity Li-Ion Battery |
|---------------------|------------------------------|
| Single Unit Charger | 5.5 hours |
| Multi-Unit Charger | 4 hours |

Charging Radio with the Drop-in Tray SUC

Procedure:

- 1 Place the drop-in Tray Single Unit Charger (SUC) on a flat surface.
- 2 Insert the connector of the power supply into the Micro USB port on the front of the drop-in tray charger.
- 3 Connect the correct power supply to a proper AC outlet.
- 4 Insert the radio with battery installed into the tray, facing down and making sure that the charging contacts on the charger are aligned with the contacts on the radio.

Figure 8: Charging Radio




NOTICE: When charging a battery attached to radio, ensure that the radio is turned off. You can enable the radio to automatically turn off when radio is inserted into the charger feature through Customer Programming Software (CPS).

Charging with the Drop-In Tray MUC-Optional Accessory

The Multi-Unit Charger (MUC) allows drop-in charging of up to six radios. Each of the six charging pockets can hold a radio with a battery installed. The MUC provides pockets for headset storage.

Procedure:

- 1 Place the charger on a flat surface or mount it on the wall.
- 2 Insert the power cord plug into the jack on the MUC.
- 3 Plug the cord into an AC outlet and then into the charger.
- 4 Turn off the radio.

 **NOTICE:** When charging a battery attached to radio, ensure that the radio is turned off. You can enable the radio to automatically turn off when radio is inserted into the charger feature through Customer Programming Software (CPS).

- 5 Insert the radio facing down with battery installed into the charging pocket, ensuring that the radio contacts are aligned with the MUC contacts.


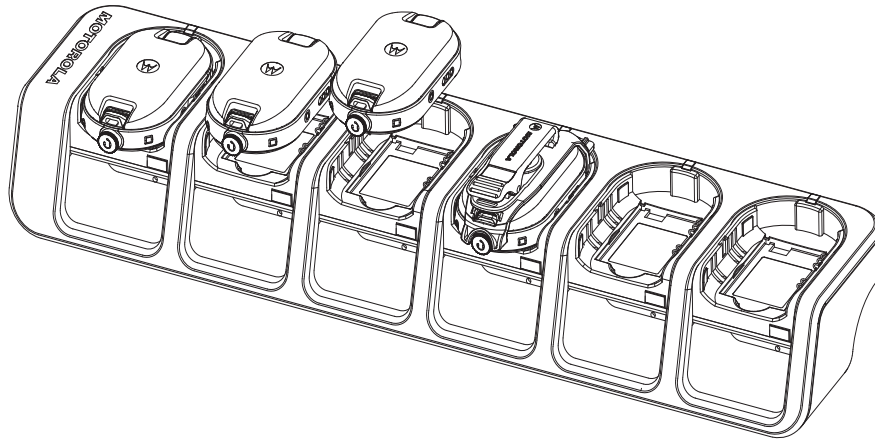
 **NOTICE:** The battery can be charged by using the slot on the flat surface of the charging pocket.


Figure 9: Charging Radios



Charger LED Indications




On the drop-in charger, the radio charging pocket has an LED Charger.

On the Multi-Unit Charger (MUC), each of the six charging pockets has an LED.

 **NOTICE:** You can clone up to two source radios and two target radios using MUC. For more information on cloning, see [Radio Cloning on page 35](#)

For part number details, see [Accessories on page 51](#).

Table 5: Charger LED Indicator

| Status | LED Indication | |
|----------------------------|----------------|---|
| Battery is charging | Steady Red |  |
| Battery is fully charged | Steady Green |  |
| Battery Fault ² | Blinking Red |  |

² Re-seating the battery pack corrects this issue.





Checking Battery Status

Procedure:

Short press and release the **Power** and **Battery** button.

The Smart Status Glow Ring and Voice Assisted Operation features show the radio battery status.

Table 6: Battery Status

| Battery Level | LED Indication | Color |
|-------------------|---|--------------|
| High (50 – 100%) |  | Green |
| Medium (20 – 50%) |  | Yellow |
| Low (3 – 20%) |  | Red |
| Critical (0 – 3%) |  | Blinking Red |

The radio returns to the current channel color after indicating the battery status.

Radio Programming through CPS

You can program or change features on your radios by using the Customer Programming Software (CPS) and the CPS Programming Cable.

CPS is available for free as web based downloadable software at <http://www.motorolasolutions.com/CLP>.

Programming the Radio

Prerequisites:

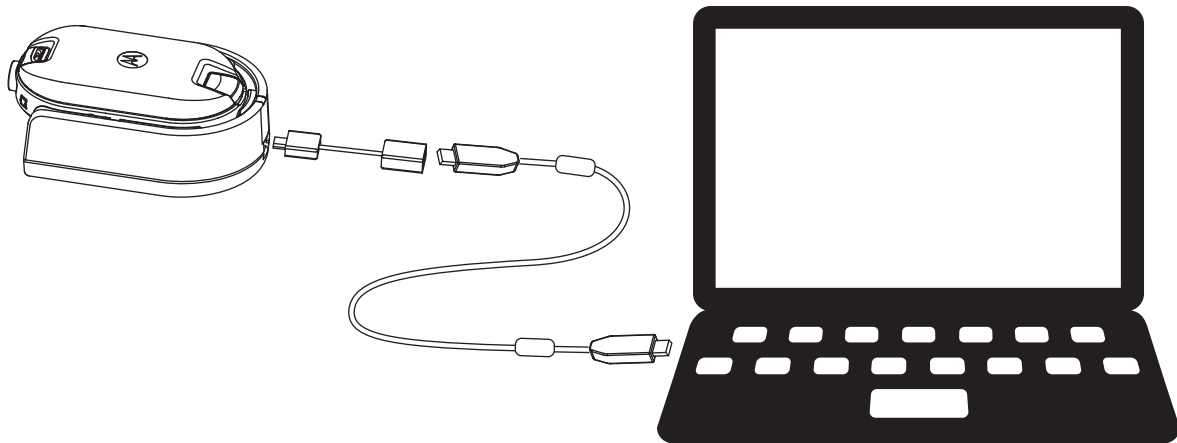
Install the Computer Programming Software (CPS) on your computer.

Ensure that the radio is turned on.

Procedure:

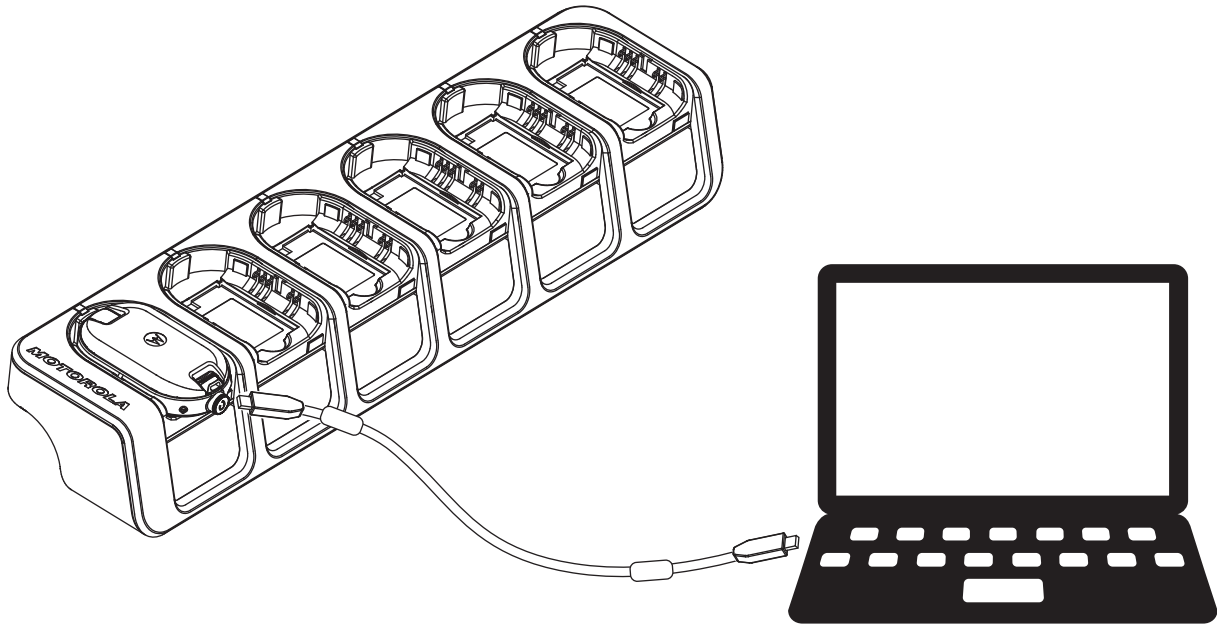
- 1 Connect the radio by using the Drop-in Charger Tray or the Charging Pocket with **PROG** label on the Multi-Unit Charger and CPS Programming Cable³.

Figure 10: Programming the Radio through a Single Unit Charger



³ CPS Programming Cable (P/N HKKN4027_) is an accessory sold separately. Contact your Motorola Solutions Point of Purchase for more information.

Figure 11: Programming the Radio through a Multi-Unit Charger



- 2 Set the cable switch to analog.
- 3 After the radio is connected, open the CPS and select **Read** on the toolbar to get the radio profile.
You can change the general, audio, menu, channels, scan list, customized PL/DPL settings and select frequencies and PL/DPL codes on each channel.
- 4 To save the settings, select **Write to radio** on the toolbar.



NOTICE: For more information on the CPS, see **Help** menu in the CPS.

Factory Default Settings

Your radio is programmed at the factory to the following settings.

Table 7: CLP1010e 1W UHF 1 CH Radios Default Settings-BRUS

| Channel Number | Frequency # | Frequency Settings (MHz) | Code Value (Hz) | Bandwidth (kHz) |
|----------------|-------------|--------------------------|-----------------|-----------------|
| 1 | 2 | 464.5500 | 67.0 | 12.5 |

Table 8: CLP1080e 1W UHF 8 CH Radios Default Settings-BRUS

| Channel Number | Frequency Settings (MHz) | Code Value (Hz) | Bandwidth (kHz) |
|----------------|--------------------------|-----------------|-----------------|
| 1 | 464.55 | 67.0 | 12.5 |
| 2 | 467.925 | | |

| Channel Number | Frequency Settings (MHz) | Code Value (Hz) | Bandwidth (kHz) |
|----------------|--------------------------|-----------------|-----------------|
| 3 | 467.85 | | |
| 4 | 467.875 | | |
| 5 | 461.0625 | | |
| 6 | 461.1125 | | |
| 7 | 461.1625 | | |
| 8 | 461.2125 | | |

Table 9: CLP1013e 1W UHF 1 CH Radios Default Settings-BRCAN

| Channel Number | Frequency # | Frequency Settings (MHz) | Code Value (Hz) | Bandwidth (kHz) |
|----------------|-------------|--------------------------|-----------------|-----------------|
| 1 | 2 | 458.6625 | 67.0 | 12.5 |

Table 10: CLP1083e 1W UHF 8 CH Radios Default Settings-BRCAN

| Channel Number | Frequency Settings (MHz) | PL/DPL Code (Hz) | Bandwidth (kHz) |
|----------------|--------------------------|------------------|-----------------|
| 1 | 458.6625 | 67.0 | 12.5 |
| 2 | 469.2625 | 67.9 | |
| 3 | 458.6625 | 71.9 | |
| 4 | 469.2625 | 71.9 | |
| 5 | 458.6625 | 74.4 | |
| 6 | 469.2625 | 74.4 | |
| 7 | 458.6625 | 77.0 | |
| 8 | 469.2625 | 77.0 | |

Radio Cloning

This feature allows you to clone radio settings from one radio to another.

Cloning Radio Settings

You can copy the radio settings from the source to another radio.

You can use one of the following unit chargers and cables for cloning:

- CLP Series Single Unit Charger (SUC) kit part number HKPN4008_4 and CLP Series Cloning Cable kit part number HKKN4028_ (optional accessory).
- Multi-Unit Charger (MUC) Kit Part Number HKPN4007_ (optional accessory)

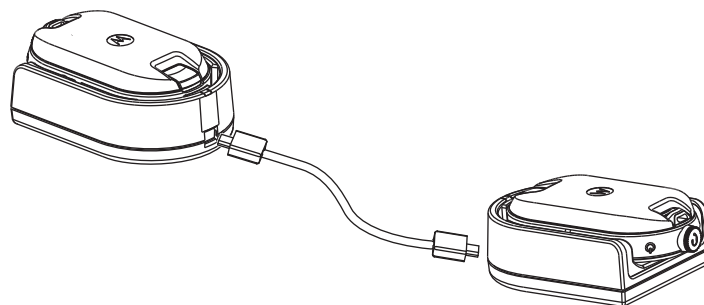
The MUC does not have to be plugged in for cloning, but both radios require charged batteries.

Cloning Radios using the Cloning Cable

Prerequisites:

- A fully charged battery on each radio.
- Two Single-Unit Charger (SUC) Kits.
- Both radios are turned off.
- Source radio: Radio to be cloned.
- Target radio: Radio to which the configuration of the source radio is to be copied.

Figure 12: Cloning the Radio through a Single Unit Charger



Procedure:

- 1 Unplug any cables such as power supply or micro USB cables from the SUC.
- 2 Plug one side of the cloning cable micro USB to one SUC and plug the other end to the second SUC.



NOTICE:

Ensure the switch on the cloning cable is set to **Legacy**.

During the cloning process, no power is applied to the SUC. The batteries cannot be charged. A data communication is established between the two radios.

⁴ Revision C onward

- 3 Turn on the target radio and place it into one of the SUC.
- 4 To power the source radio, press and hold the **PTT** button and the - button simultaneously while turning on the radio until you hear the cloning tone.
- 5 To start the cloning process, place the source radio in its SUC with an audio accessory, then press and release the **Menu** button.

If successful, the source radio sounds a good key chirp tone.

If unsuccessful, the source radio sounds bonk tone.

The tone sounds for no more than five seconds.

- 6 Turn the radios off and on to bring the radios to the user mode by exiting the clone mode when the cloning process is completed.



NOTICE: When the radio is in clone mode, the **Auto Power Off** feature is not applicable.

Cloning Radios using the Multi-Unit Charger

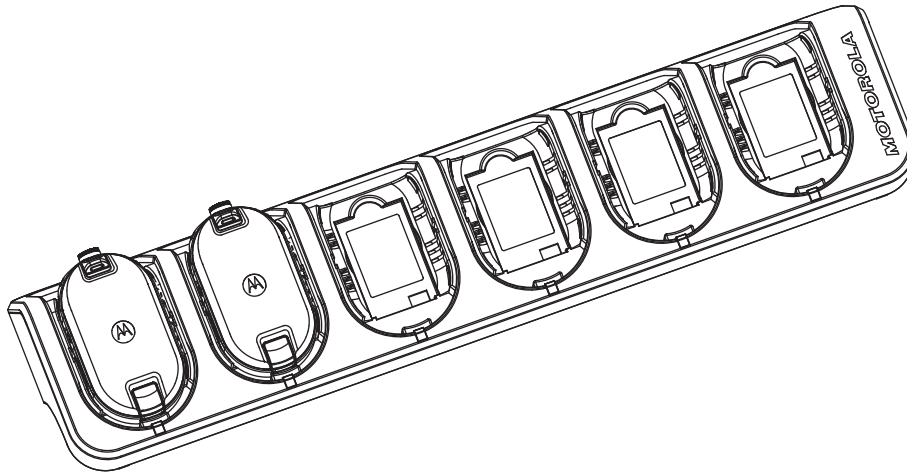
Prerequisites:

- A fully charged battery on each radio.
- CLP Series Multi-Unit Charger (MUC).
- Both radios are turned off.
- Source radio: Radio to be cloned.
- Target radio: Radio to which the configuration of the source radio is to be copied.

Procedure:

- 1 To put the source radio into clone mode, press and hold the source radio **PTT** button and the - button simultaneously while turning on the radio until you hear the cloning tone.
- 2 Place the source radio into one of the charging pockets that has the **CLONE** label.
- 3 Turn on the target radio and place it in the pairing charging pocket that has the **CLONE** label and start the cloning process.
- 4 To start the cloning process, press the **Menu** button on the source radio.
The source radio generates the start clone tone.
- 5 To activate the radio, turn off and on the radios when cloning process is completed.
- 6 To clone another radio, repeat [step 3](#) to [step 5](#).
- 7 To exit clone mode on the source radio, turn off the radio.

Figure 13: Cloning the Radio through a Multi-Unit Charger



Troubleshooting Cloning Mode

When and where to use:

The radio audible voice announces “Bonk” indicating that the cloning process has failed. In the event that cloning fails, perform each of the following steps before attempting to start cloning process again.

Procedure:

- 1 Ensure that the batteries on both radios are fully charged and engaged properly on the radio.
- 2 Check the cloning cable connection on both Single-Unit Chargers (SUC).
- 3 Ensure that there is no debris in the charging tray or on the radio contacts and the radio contact is touching the SUC or MUC contact firmly.
- 4 Ensure that the Target Radio is turned on.
- 5 Ensure that the Source Radio is in cloning mode.
- 6 Ensure that the two radios are both from the same frequency band, same region and have the same transmission power.



NOTICE: This cloning cable is designed to operate only with compatible Motorola Solutions SUC.

When ordering cloning cable kit, refer to part number HKKN4028_. For more information about the accessories, see [Accessories on page 51](#).

Advanced Radio Configuration

Advanced Radio Configuration allows you to configure settings from a pre-programmed list without using a computer.

Advanced Configuration Mode allows you to customize the following settings:

- Channels
- Frequencies
- Codes (CTCC/DPL)

Frequencies allow you to select frequencies for each channel. **Codes** help minimize interference by providing you with a choice of code combinations that filter out static, noise, and unwanted messages.

Entering Advanced Radio Configuration Mode

Prerequisites:

Turn the radio off.

Procedure:

- 1** Press the **PTT**, **+** button and **Power** button simultaneously and hold for 3 to 5 seconds until you hear a sound and the voice prompt *Programming Mode*.
The LED blinks green.
- 2** To select the settings you want to change, press the **Menu** button.
The followings are the settings that you can change:
 - Channel (for multi-channel models)
 - Frequency
 - CodeThe voice announcements indicate the menu items and their current settings.
- 3** To change the settings, press the **+** or **-** button.
- 4** To go to the next menu item, press the **Menu** button.
- 5** To exit the **Advanced Radio Configuration** mode, press and hold the **PTT** button until you hear a sound.


Troubleshooting


The following table explains the ways to troubleshoot if the symptom occurred.

Symptom and Solutions

Procedure:

1

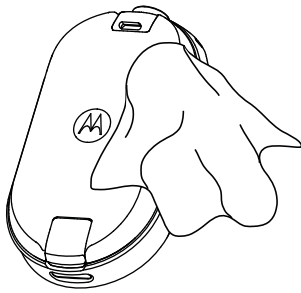
| If... | Then... |
|---|--|
| <p>No power</p> | <p>Recharge or replace the Li-Ion battery.</p> <p> NOTICE: Extreme operating temperatures may affect battery life.</p> <p>See Battery Specifications on page 26.</p> |
| <p>Hearing other noises or conversation on a channel</p> | <p>Frequency or Interference Eliminator Code may be in use.</p> <p>Perform one of the following actions:</p> <ul style="list-style-type: none"> • Confirm Interference Eliminator Code is set. • Change frequencies or codes settings on all radios. • Ensure the radio is at the right frequency and code when transmitting. |
| <p>Message Scrambled</p> | <p>Scramble Code might be on or the setting does not match other radio settings.</p> <p>Change the settings through Customer Programming Software (CPS).</p> |
| <p>Audio quality not good enough</p> | <p>Radio settings might not be match correctly.</p> <p>Check the frequencies, codes, and bandwidths to ensure the settings are the same in all radios.</p> |
| <p>Limited talk range</p> | <p>Perform one of the following actions:</p> <ul style="list-style-type: none"> • Check for clear line of sight to improve transmission. Avoid being near steel, concrete structures, heavy foliage, buildings, or vehicles. • Change the placement of the radio. • To increase range and coverage, you can reduce obstructions or increase power. UHF radios provides greater coverage in industrial and commercial buildings. Increasing power provides greater |

| If... | Then... |
|--|--|
| | <p>signal range and increased penetration through obstructions.</p> |
| <p>Message not transmitted or received</p> | <p>Perform one of the following actions:</p> <ul style="list-style-type: none"> • Ensure the PTT button is completely pressed when transmitting. • Confirm that the radios have the same Channel, Frequency, Interference Eliminator Code, and Scramble Code settings. See Transmitting and Receiving on page 20. • Recharge, replace, or reposition batteries. See Battery Specifications on page 26. • Change the radio placement. Obstructions and operating indoors, or in vehicles, may interfere. • Verify that the radio is not in Scan mode. See Scanning Radio Channels on page 24. |
| <p>Heavy static or interference</p> | <p>Radios are too close. Ensure the transmitting and receiving radios are at least five feet apart.</p> <p>Radios are too far apart or obstacles are interfering with transmission.</p> |
| <p>Low batteries</p> | <p>Recharge or replace Li-Ion battery.</p> <p> NOTICE: Extreme operating temperatures affect battery life.</p> <p>See Battery Specifications on page 26.</p> |
| <p>Drop-in Charger LED light does not blink</p> | <p>Perform one of the following actions:</p> <ul style="list-style-type: none"> • Verify that the radio and battery is properly inserted. • Check the battery and charger contacts to ensure that they are clean and charging pin is inserted correctly. <p>See Charging a Stand-Alone Battery with the Drop-in Tray SUC on page 28 and Charger LED Indications on page 30.</p> |
| <p>Battery does not charge although it has been placed in the drop-in charger for a while</p> | <p>Perform one of the following actions:</p> <ul style="list-style-type: none"> • Verify the drop-in tray charger is properly connected and corresponds to a compatible power supply. See Charging a Stand-Alone Battery with the Drop-in Tray SUC on page 28. |

| If... | Then... |
|-------|--|
| | <ul style="list-style-type: none">• Check the charger LEDs indicators to see if the battery has a problem. See Charger LED Indications on page 30. |

Use and Care

This chapter explains the maintenance of the radio.



Use a soft damp cloth to clean the exterior

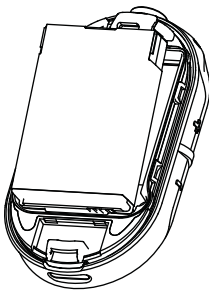


Do not immerse in water

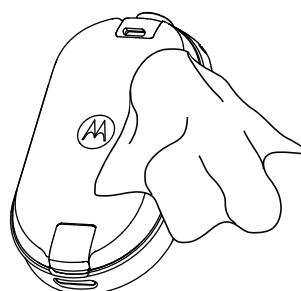


Do not use alcohol or cleaning solutions

If the radio is submerged in water:



Turn the radio off and remove batteries



Dry with soft cloth



Do not use the radio until it is completely dry



NOTICE: Radio is IP54 only when the dust cover or audio accessory is plugged into the connector.

Radio Frequency and Code Chart

The following tables shows the frequency information and are useful when using Motorola Solutions CLP Series Two-Way Radios with other business radios.

Most of the frequency positions are the same as Spirit M, GT, S, XTN, RDX, and CLS Series frequency positions, the bandwidths are different.

Canada Frequency List and Bandwidth

Table 11: Frequency List and Bandwidth

| Freq # | Frequency Settings (MHz) | Bandwidth (kHz) |
|--------|--------------------------|-----------------|
| 1 | 458.6625 | 12.5 |
| 2 | 469.2625 | 12.5 |

CLP Frequencies

Table 12: CLP UHF Frequencies

| Freq# | Freq (MHz) | Band Width (kHz) | Freq# | Freq (MHz) | Band Width (kHz) |
|-------|------------|------------------|-------|------------|------------------|
| 1 | 464.5000 | 12.5 | 46 | 466.3375 | 12.5 |
| 2 | 464.5500 | 12.5 | 47 | 466.3625 | 12.5 |
| 3 | 467.7625 | 12.5 | 48 | 467.7875 | 12.5 |
| 4 | 467.8125 | 12.5 | 49 | 467.8375 | 12.5 |
| 5 | 467.8500 | 12.5 | 50 | 467.8625 | 12.5 |
| 6 | 467.8750 | 12.5 | 51 | 467.8875 | 12.5 |
| 7 | 467.9000 | 12.5 | 52 | 467.9125 | 12.5 |
| 8 | 467.9250 | 12.5 | 53 | 469.4875 | 12.5 |
| 9 | 461.0375 | 12.5 | 54 | 469.5125 | 12.5 |
| 10 | 461.0625 | 12.5 | 55 | 469.5375 | 12.5 |
| 11 | 461.0875 | 12.5 | 56 | 469.5625 | 12.5 |
| 12 | 461.1125 | 12.5 | 57 | 462.1875 | 12.5 |
| 13 | 461.1375 | 12.5 | 58 | 462.4625 | 12.5 |
| 14 | 461.1625 | 12.5 | 59 | 462.4875 | 12.5 |
| 15 | 461.1875 | 12.5 | 60 | 462.5125 | 12.5 |
| 16 | 461.2125 | 12.5 | 61 | 467.1875 | 12.5 |
| 17 | 461.2375 | 12.5 | 62 | 467.4625 | 12.5 |
| 18 | 461.2625 | 12.5 | 63 | 467.4875 | 12.5 |

| Freq# | Freq (MHz) | Band Width (kHz) | Freq# | Freq (MHz) | Band Width (kHz) |
|-------|------------|------------------|-------|------------|------------------|
| 19 | 461.2875 | 12.5 | 64 | 467.5125 | 12.5 |
| 20 | 461.3125 | 12.5 | 65 | 451.1875 | 12.5 |
| 21 | 461.3375 | 12.5 | 66 | 451.2375 | 12.5 |
| 22 | 461.3625 | 12.5 | 67 | 451.2875 | 12.5 |
| 23 | 462.7625 | 12.5 | 68 | 451.3375 | 12.5 |
| 24 | 462.7875 | 12.5 | 69 | 451.4375 | 12.5 |
| 25 | 462.8125 | 12.5 | 70 | 451.5375 | 12.5 |
| 26 | 462.8375 | 12.5 | 71 | 451.6375 | 12.5 |
| 27 | 462.8625 | 12.5 | 72 | 452.3125 | 12.5 |
| 28 | 462.8875 | 12.5 | 73 | 452.5375 | 12.5 |
| 29 | 462.9125 | 12.5 | 74 | 452.4125 | 12.5 |
| 30 | 464.4875 | 12.5 | 75 | 452.5125 | 12.5 |
| 31 | 464.5125 | 12.5 | 76 | 452.7625 | 12.5 |
| 32 | 464.5375 | 12.5 | 77 | 452.8625 | 12.5 |
| 33 | 464.5625 | 12.5 | 78 | 456.1875 | 12.5 |
| 34 | 466.0375 | 12.5 | 79 | 456.2375 | 12.5 |
| 35 | 466.0625 | 12.5 | 80 | 456.2875 | 12.5 |
| 36 | 466.0875 | 12.5 | 81 | 468.2125 | 12.5 |
| 37 | 466.1125 | 12.5 | 82 | 468.2625 | 12.5 |
| 38 | 466.1375 | 12.5 | 83 | 468.3125 | 12.5 |
| 39 | 466.1625 | 12.5 | 84 | 468.3625 | 12.5 |
| 40 | 466.1875 | 12.5 | 85 | 468.4125 | 12.5 |
| 41 | 466.2125 | 12.5 | 86 | 468.4625 | 12.5 |
| 42 | 466.2375 | 12.5 | 87 | 468.5125 | 12.5 |
| 43 | 466.2625 | 12.5 | 88 | 468.5625 | 12.5 |
| 44 | 466.2875 | 12.5 | 89 | 468.6125 | 12.5 |
| 45 | 466.3125 | 12.5 | 90 | 468.6625 | 12.5 |

CTCSS/DPL Interference Eliminator Codes

Table 13: CTCSS/DPL Interference Eliminator Codes

| CTCSS | Code | CTCSS/ DPL | Code | DPL | Code | DPL | Code | DPL | Code |
|-------|----------|---------------|-------|-----|------|-----|------|-----|------|
| 0 | Disabled | 24 | 151.4 | 47 | 54 | 71 | 243 | 95 | 445 |
| 1 | 67.0 | 25 | 156.7 | 48 | 65 | 72 | 244 | 96 | 464 |
| 2 | 71.9 | 26 | 162.2 | 49 | 71 | 73 | 245 | 97 | 465 |

| CTCSS | Code | CTCSS/ DPL | Code | DPL | Code | DPL | Code | DPL | Code |
|-------|-------|---------------|-------|-----|------|-----|------|-----|------|
| 3 | 74.4 | 27 | 167.9 | 50 | 72 | 74 | 251 | 98 | 466 |
| 4 | 77.0 | 28 | 173.8 | 51 | 73 | 75 | 261 | 99 | 503 |
| 5 | 79.7 | 29 | 179.9 | 52 | 74 | 76 | 263 | 100 | 506 |
| 6 | 82.5 | 30 | 186.2 | 53 | 114 | 77 | 265 | 101 | 516 |
| 7 | 85.4 | 31 | 192.8 | 54 | 115 | 78 | 271 | 102 | 532 |
| 8 | 88.5 | 32 | 203.5 | 55 | 116 | 79 | 306 | 103 | 546 |
| 9 | 91.5 | 33 | 210.7 | 56 | 125 | 80 | 311 | 104 | 565 |
| 10 | 94.8 | 34 | 218.1 | 57 | 131 | 81 | 315 | 105 | 606 |
| 11 | 97.4 | 35 | 225.7 | 58 | 132 | 82 | 331 | 106 | 612 |
| 12 | 100.0 | 36 | 233.6 | 59 | 134 | 83 | 343 | 107 | 624 |
| 13 | 103.5 | 37 | 241.8 | 60 | 143 | 84 | 346 | 108 | 627 |
| 14 | 107.2 | 38 | 250.3 | 61 | 152 | 85 | 351 | 109 | 631 |
| 15 | 110.9 | 122 | 69.3 | 62 | 155 | 86 | 364 | 110 | 632 |
| 16 | 114.8 | 39 | 23.0 | 63 | 156 | 87 | 365 | 111 | 654 |
| 17 | 118.8 | 40 | 25.0 | 64 | 162 | 88 | 371 | 112 | 662 |
| 18 | 123.0 | 41 | 26.0 | 65 | 165 | 89 | 411 | 113 | 664 |
| 19 | 127.3 | 42 | 31.0 | 66 | 172 | 90 | 412 | 114 | 703 |
| 20 | 131.8 | 43 | 32.0 | 67 | 174 | 91 | 413 | 115 | 712 |
| 21 | 136.5 | 44 | 43.0 | 68 | 205 | 92 | 423 | 116 | 723 |
| 22 | 141.3 | 45 | 47.0 | 69 | 223 | 93 | 431 | 117 | 731 |
| 23 | 146.2 | 46 | 51.0 | 70 | 226 | 94 | 432 | 118 | 732 |
| | | | | | | | | 119 | 734 |

Table 14: CTCSS/DPL Interference Eliminator Codes (Continued)

| DPL | Code | DPL | Code | DPL | Code | DPL | Code |
|-----|---------------|-----|-----------------|-----|-----------------|-----|------------------|
| 120 | 743 | 146 | Inverted DPL 55 | 171 | Inverted DPL 80 | 195 | Inverted DPL 104 |
| 121 | 754 | 147 | Inverted DPL 56 | 172 | Inverted DPL 81 | 196 | Inverted DPL 105 |
| 123 | 645 | 148 | Inverted DPL 57 | 173 | Inverted DPL 82 | 197 | Inverted DPL 106 |
| 124 | Customized PL | 149 | Inverted DPL 58 | 174 | Inverted DPL 83 | 198 | Inverted DPL 107 |
| 125 | Customized PL | 150 | Inverted DPL 59 | 175 | Inverted DPL 84 | 199 | Inverted DPL 108 |

MN006179A01-AA
Radio Frequency and Code Chart

| DPL | Code | DPL | Code | DPL | Code | DPL | Code |
|-----|-----------------------|-----|--------------------|-----|---------------------|-----|---------------------|
| 126 | Cus- tomized PL | 151 | Inverted DPL 60 | 176 | Inverted DPL 85 | 200 | Inverted DPL 109 |
| 127 | Cus- tomized PL | 152 | Inverted DPL 61 | 177 | Inverted DPL 86 | 201 | Inverted DPL 110 |
| 128 | Cus- tomized PL | 153 | Inverted DPL 62 | 178 | Inverted DPL 87 | 202 | Inverted DPL 111 |
| 129 | Cus- tomized PL | 154 | Inverted DPL 63 | 179 | Inverted DPL 88 | 203 | Inverted DPL 112 |
| 130 | Inverted DPL 39 | 155 | Inverted DPL 64 | 180 | Inverted DPL 89 | 204 | Inverted DPL 113 |
| 131 | Inverted DPL 40 | 156 | Inverted DPL 65 | 181 | Inverted DPL 90 | 205 | Inverted DPL 114 |
| 132 | Inverted DPL 41 | 157 | Inverted DPL 66 | 181 | Inverted DPL 90 | 206 | Inverted DPL 115 |
| 133 | Inverted DPL 42 | 158 | Inverted DPL 67 | 182 | Inverted DPL 91 | 207 | Inverted DPL 116 |
| 134 | Inverted DPL 43 | 159 | Inverted DPL 68 | 183 | Inverted DPL 92 | 208 | Inverted DPL 117 |
| 135 | Inverted DPL 44 | 160 | Inverted DPL 69 | 184 | Inverted DPL 93 | 209 | Inverted DPL 118 |
| 136 | Inverted DPL 45 | 161 | Inverted DPL 70 | 185 | Inverted DPL 94 | 210 | Inverted DPL 119 |
| 137 | Inverted DPL 46 | 162 | Inverted DPL 71 | 186 | Inverted DPL 95 | 211 | Inverted DPL 120 |
| 138 | Inverted DPL 47 | 163 | Inverted DPL 72 | 187 | Inverted DPL 96 | 212 | Inverted DPL 121 |
| 139 | Inverted DPL 48 | 164 | Inverted DPL 73 | 188 | Inverted DPL 97 | 213 | Inverted DPL 123 |
| 140 | Inverted DPL 49 | 165 | Inverted DPL 74 | 189 | Inverted DPL 98 | 214 | Customized DPL |
| 141 | Inverted DPL 50 | 166 | Inverted DPL 75 | 190 | Inverted DPL 99 | 215 | Customized DPL |
| 142 | Inverted DPL 51 | 167 | Inverted DPL 76 | 191 | Inverted DPL 100 | 216 | Customized DPL |
| 143 | Inverted DPL 52 | 168 | Inverted DPL 77 | 192 | Inverted DPL 101 | 217 | Customized DPL |
| 144 | Inverted DPL 53 | 169 | Inverted DPL 78 | 193 | Inverted DPL 102 | 218 | Customized DPL |
| 145 | Inverted DPL 54 | 170 | Inverted DPL 79 | 194 | Inverted DPL 103 | 219 | Customized DPL |

Motorola Solutions Limited Warranty for the United States and Canada

Warranty

Subject to the exclusions contained below, Motorola Solutions, Inc. warrants its telephones, pagers, and consumer and business two way radios (excluding commercial, government or industrial radios) that operate via Family Radio Service or General Mobile Radio Service, Motorola Solutions-branded or certified accessories sold for use with these Products (“Accessories”) and Motorola software contained on CD-ROMs or other tangible media and sold for use with these Products (“Software”) to be free from defects in materials and workmanship under normal consumer usage for the period(s) outlined.

This limited warranty is a consumer's exclusive remedy, and applies as follows to new Motorola Solutions Products, Accessories and Software purchased by consumers in the United States, which are accompanied by this written warranty.

Products and Accessories

The table shows the length of coverage of products and accessories.

Table 15: Products and Accessories

| Products Covered | Length of Coverage |
|--|---|
| Products and accessories as defined above, unless otherwise provided for below | One (1) year from the date of purchase by the first purchaser of the product unless otherwise provided for below. |
| Decorative accessories and cases. Decorative covers, bezels, PhoneWrap™ covers and cases | Limited lifetime warranty for the lifetime of ownership by the first purchaser of the product. |
| Business two-way radio accessories | One (1) year from the date of purchase by the first purchaser of the product. |
| Products and accessories that are repaired or replaced | The balance of the original warranty or for 90 days from the date returned to the consumer, whichever is longer. |
| Two-way radio | Two (2) years from the date of purchase by the first purchaser of the product. |

Exclusions

Normal Wear and Tear

Periodic maintenance, repair and replacement of parts due to normal wear and tear are excluded from coverage.

Batteries

Only batteries whose fully charged capacity falls below 80% of their rated capacity and batteries that leak are covered by this limited warranty.

Abuse and Misuse

Defects or damage that result from:

- improper operation, storage, misuse or abuse, accident or neglect, such as physical damage (cracks, scratches, etc.) to the surface of the product resulting from misuse
- contact with liquid, water, rain, extreme humidity or heavy perspiration, sand, dirt or the like, extreme heat, or food
- use of the Products or Accessories for commercial purposes or subjecting the Product or Accessory to abnormal usage or conditions
- other acts which are not the fault of Motorola Solutions, are excluded from coverage.

Use of Non-Motorola Solutions Products and Accessories

Defects or damage that result from the use of Non-Motorola Solutions branded or certified Products, Accessories, Software or other peripheral equipment are excluded from coverage.

Unauthorized Service or Modification

Defects or damages resulting from service, testing, adjustment, installation, maintenance, alteration, or modification in any way by someone other than Motorola Solutions, or its authorized service centers, are excluded from coverage.

Altered Products

Products or Accessories with:

- serial numbers or date tags that have been removed, altered or obliterated
- broken seals or that show evidence of tampering
- mismatched board serial numbers
- nonconforming or non-Motorola Solutions housings, or parts, are excluded form coverage

Communication Services

Defects, damages, or the failure of Products, Accessories or Software due to any communication service or signal you may subscribe to or use with the Products Accessories or Software is excluded from coverage.

Software

Table 16: Software Warranty Table

| Products Covered | Length of Coverage |
|--|------------------------------------|
| Software Applies only to physical defects of the media that embodies the copy of the software (for example CDROM, or floppy disk). | 90 days from the date of purchase. |

Exclusions

Software Embodied in Physical Media

The warranty does not cover that the software will meet your requirements or will work in combination with any hardware or software applications provided by third parties, that the operation of the software products will be uninterrupted or error free, or that all defects in the software products will be corrected.

Software not Embodied in Physical Media

Software that is not embodied in physical media (for example, software downloaded from the internet), is provided “as is” and without warranty.

Warranty Coverage

This warranty extends only to the first consumer purchaser, and is not transferable.

Warranty and Service Support

Motorola Solutions have the option to repair or replace the Products or software that do not conform to the warranty, or to refund the Products' purchase price at no charge.

We may use functionally equivalent re-conditioned/refurbished/pre-owned or new Products or parts. No software updates are provided.

Retain Your Original Proof of Purchase

Motorola Solutions will ship repaired or replacement Products at our expense for the freight and insurance, but at your expense for any duties.

If additional information is needed, contact your Motorola Solutions point of purchase.

How to Obtain Warranty Service or Other Information

Contact your Motorola Solutions point of purchase.

- 1-800-448- 6686 in the USA
- 1-800-461-4575 in Canada
- 1-866-522-5210 on your TTY (Text Telephone)

You will receive instructions on how to ship the Products to Motorola Solutions. You must ship the Products to us with freight, duties and insurance prepaid. Along with the Products you must include:

- a copy of your receipt, bill of sale or other comparable proof of purchase
- a written description of the problem
- the name of your service provider (if this Product requires subscription service)
- the name and location of the installation facility (if applicable) and, most importantly
- your address and telephone number. If requested, you must also return all detachable parts such as antennas, batteries and chargers.

Software Copyrights Notice

The Motorola Solutions products described in this manual may include copyrighted Motorola Solutions computer programs stored in semiconductor memories or other media. Laws in the United States and other countries preserve for Motorola Solutions certain exclusive rights for copyrighted computer programs including, but not limited to, the exclusive right to copy or reproduce in any form the copyrighted computer program. Accordingly, any copyrighted Motorola Solutions computer programs contained in the Motorola Solutions products described in this manual may not be copied, reproduced, modified, reverse-engineered, or distributed in any manner without the express written permission of Motorola Solutions.

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 license to use that arises by operation of law in the sale of a product.

Patent Notice

This product is covered by one or more of the following United States patents.

5896277 5894292 5864752 5699006 5742484 D408396 D399821 D387758 D389158 5894592
5893027 5789098 5734975 5861850 D395882 D383745 D389827 D389139 5929825 5926514
5953640 6071640 D413022 D416252 D416893 D433001

Export Law Assurances

This product is controlled under the export regulations of the United States of America. The Government of the United States of America may restrict the exportation or re-exportation of this product to certain destinations.

For further information, contact the U.S. Department of Commerce.

Accessories

Table 17: Audio Accessories

| Part No. | Description |
|-----------|---|
| PMLN8077_ | Over-the-ear earpiece, Single Pin |
| PMLN8125_ | Over-the-ear earpiece, Single Pin, Short Cord |

Table 18: Batteries

| Part No. | Description |
|-----------|---|
| HKNN4013_ | CLP Series High Capacity Li-Ion Battery |
| PMLN8066_ | CLPe High Capacity Li-Ion Battery Door |

Table 19: Carry Accessories

| Part No. | Description |
|-----------|-------------------------------------|
| PMLN8064_ | CLPe Series Magnetic Case |
| PMLN8065_ | CLP Series Swivel Belt Clip Holster |

Table 20: Chargers

| Part No. | Description |
|------------------------|--|
| HKPN4007_ | CLP Series Multi-Unit Charger (MUC) Kit |
| HKPN4008_ ⁵ | CLP Series Single-Unit Charger (SUC) Kit |

Table 21: Programming Cables

| Part No. | Description |
|-----------|--------------------------|
| HKKN4027_ | CLP Series CPS Cable |
| HKKN4028_ | CLP Series Cloning Cable |

Contacts

For product-related questions, contact:

- 1-800-448- 6686 in the USA
- 1-800-461-4575 in Canada
- 1-866-522-5210 on your TTY (Text Telephone)

⁵ Revision C onward