Vertex Standard

VX-556 UHF CBRS Transceiver User Guide

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Contents

Important Safety Information

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

Caution: This radio is restricted to Occupational use only. Before using the radio, read the *RF Energy Exposure and Product Safety Guide* that comes with the radio. This guide contains operating instructions for safe usage, RF energy awareness, and control for compliance with applicable standards and regulations.

Any modification to this device, not expressly authorized by Motorola Solutions, may void the user's authority to operate this device.

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 (FCC and Industry Canada)

This device complies with Part 15 of the FCC rules and Industry Canada license-exempt RSS's 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.
- Changes or modifications made to this device, not expressly approved by Motorola Solutions, could void the authority of the user to operate this equipment.

RF Exposure Requirements

The information listed in this topic provides the user with the information needed to make the user aware of RF exposure. This radio generates RF electromagnetic energy during transmit mode. To ensure that your expose to RF electromagnetic energy, always adhere to the following guidelines:

- This radio is NOT approved for use by the general population in an uncontrolled exposure environment. This radio is restricted to occupational use, work-related operations only where the radio operator must have the knowledge to control his or her RF exposure conditions.
- When transmitting, hold the radio in a vertical position with its microphone 2 inches (5 cm) away from your mouth and keep the antenna at least 2 inches (5 cm) away from your head and body.
- The radio must be used with a maximum operating duty cycle not exceeding 50, in typical Push-to-Talk (PTT) configurations.
- DO NOT transmit for more than 50% of total radio use time (50% duty cycle).
- To keep the Body Worn configuration with the Motorola Solutions CLIP-28 belt-clip, reduce the maximum operating duty cycle still more.
- The radio is transmitting when the red LED on the top of the radio is illuminated. You can cause the radio to transmit by pressing the PTT button.
- When operate the radio with the Motorola Solutions CLIP-28 belt-clip, make the transmission time as short as possible, to keep the Body Worn configuration.
- Always use Motorola Solutions authorized accessories.

Electromagnetic Interference/Compatibility

During transmissions, this radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so.

Do not operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, health care facilities, aircraft, and blasting sites.

Important Information Concerning UHF CB Radio

The use of the Citizen Band Radio Service is licensed in Australia by the ACMA radio communications (Citizens Band Radio Stations) class license and in New Zealand by the ministry of Economic Development New Zealand (MED). A General user radio license for Citizens Band Radio and operation is subject to conditions contained in those licenses.

The class license for users and equipment operating in the CB / PRS 477 MHZ band has been amended.

This radio meets the new 80-channel standard.

In simple terms the same amount of spectrum is available; However, radio transceivers can now operate in a narrower bandwidth and hence use less spectrum.

These radios are generally referred to as narrowband or 12.5 kHz radios. By using 12.5 kHz channel spacing instead of 25 kHz, the 40 channels originally allocated can now be expanded to 80 channels there by doubling the channel capacity and relieving congestion in the UHF CB/PRS band.

Original 40 channel wideband radios continue to operate on the original 40 channels. However they will not be able to converse on the newer channels 41-80.

The newer narrowband radios will be able to converse with all older 40 channel wideband radios on all channels 1 to 40 as well as the newer channels allocated from 41 to 80.

The mixing of narrowband and wideband radios in the same spectrum can cause some possible operating issues of interference and varying levels of received volume.

Possible Issues

When a new narrowband radio receives a transmission from an older wideband radio, the speech can sound loud and distorted. Adjust your radio volume for best performance.

When an older wideband radio receives a signal from a new narrowband radio, the speech can sound quiet. Adjust your radio volume for best performance.

Depending on how close your receiving radio is to another transmitting radio, there can be interference from the transmitting radio if it is using a channel adjacent to the channel you are listening to.

Simply try going up or down a few channels from the currently selected channel. The above situations are not a fault of the radio but a symptom of operating wideband and narrowband radios in the same bandwidth.

This possible interference will decrease over time as the population of wideband radios ages and decreases. This possible interference will decrease over time as the population of wideband radios ages and decreases.

Further information and updates are available from the Australian communications and media Authority (ACMA) at www.acma.gov.au and the Ministry of Economic Development (MED), radio spectrum management at: www.rsm.govt.nz.

Emergency Channels

The ACMA has allocated channels 5 / 35 for emergency use only. Channel 5 is the primary simplex Emergency channel. Where a channel 5 repeater is available, you should select Duplex on CB-5R.

Note: Channel 35 is the input channel for the channel 5 repeater therefore channel 35 should also not be used for anything other than emergency transmissions.

Telemetry Channels

ACMA regulations have allocated channels 22 and 23 for telemetry only applications and have prohibited the transmission of speech on these channels. Consequently your radio has a transmit inhibit applied to channels 22 and 23.

In the event additional telemetry/telecommand channels are approved by the ACMA, these channels shall be added to those currently listed where voice transmission is inhibited. Currently transmissions on channels 61, 62 and 63 are also inhibited and these channels are reserved for future allocation.

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European Union (EU) and United Kingdom (UK) Waste of Electrical and Electronic Equipment (WEEE) Directive

The European Union's WEEE directive and the UK's WEEE regulation require that products sold into EU countries and the UK must have the crossed-out wheelie bin label on the product (or the package in some cases). As defined by the WEEE directive, this crossed-out wheelie bin label means that customers and end-users in EU and UK countries should not dispose of electronic and electrical equipment or accessories in household waste.

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

Disclaimer

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

VX-556 Introduction

This manual details the advanced features provided in the VX-556 transceiver. After reading this manual, consult with your Network Administrator about the VX-556 configuration for use in your application.

Note: There are no owner-serviceable parts inside the radio. All service jobs must be referred to an authorized Motorola Solutions Service Representative. Consult your Authorized Motorola Solutions Dealer for installation of optional accessories.

Frequency Tables

Table 1: CTCSS Tone Frequency (Hz)

OFF	94.7	136.5	177.3	218.1
67.0	97.4	141.3	179.9	225.7
69.3	100.0	146.2	183.5	229.1
71.9	103.5	151.4	186.2	233.6
74.4	107.2	156.7	189.9	241.8
77.0	110.9	159.8	192.8	250.3
79.7	114.8	162.2	196.6	254.1
82.5	118.8	165.5	199.5	–
85.4	123.0	167.9	203.5	–
88.5	127.3	171.3	206.5	–
91.5	131.8	173.8	210.7	–

Table 2: DCS Code

OFF	D131	D251	D411	D546
D023	D132	D252	D412	D565
D025	D134	D255	D413	D606
D026	D143	D261	D423	D612
D031	D145	D263	D431	D624
D032	D152	D265	D432	D627
D036	D155	D266	D435	D631
D043	D156	D271	D445	D632
D047	D162	D274	D446	D654
D051	D165	D306	D452	D662
D053	D172	D311	D454	D664
D054	D174	D315	D455	D703
D065	D205	D325	D462	D712
D071	D212	D331	D464	D723
D072	D223	D332	D465	D731
D073	D225	D343	D466	D732
D074	D226	D346	D503	D734
D114	D243	D351	D506	D743
D115	D244	D356	D516	D754
D116	D245	D364	D523	–
D122	D246	D365	D526	–
D125	D250	D371	D532	–

Table 3: VX-556 CB Channel List (Channels CB-01 R to CB-40)

Channel	Frequency (MHz)		Channel	Frequency (MHz)	
	RX	TX		RX	TX
CB-01 R	476.4250	477.1750	CB-17	476.8250	
CB-01	476.4250		CB-18	476.8500	
CB-02 R	476.4500	477.2000	CB-19	476.8750	
CB-02	476.4500		CB-20	476.9000	
CB-03 R	476.4750	477.2250	CB-21	476.9250	
CB-03	476.4750		CB-22	476.9500	–
CB-04 R	476.5000	477.2500	CB-23	476.9750	–
CB-04	476.5000		CB-24	477.0000	
CB-05 R	476.5250	477.2750	CB-25	477.0250	
CB-05	476.5250		CB-26	477.0500	
CB-06 R	476.5500	477.3000	CB-27	477.0750	
CB-06	476.5500		CB-28 0	477.100	
CB-07 R	476.5750	477.3250	CB-29	477.1250	
CB-07	476.5750		CB-30	477.1500	
CB-08 R	476.6000	477.3500	CB-31	477.1750	
CB-08	476.6000		CB-32	477.2000	
CB-09	476.6250		CB-33	477.2250	
CB-10	476.6500		CB-34	477.2500	
CB-11	476.6750		CB-35	477.2750	
CB-12	476.7000		CB-36	477.3000	
CB-13	476.7250		CB-37	477.3250	
CB-14	476.7500		CB-38	477.3500	
CB-15	476.7750		CB-39	477.3750	
CB-16	476.8000		CB-40	477.4000	

Table 4: VX-556 CB Channel List (Channels CB-41 to CB-80)

Channel	Frequency (MHz)		Channel	Frequency (MHz)	
	RX	TX		RX	TX
CB-41 R	476.4375	477.1875	CB-57	476.8375	
CB-41	476.4375		CB-58	476.8625	
CB-42 R	476.4625	477.2125	CB-59	476.8875	
CB-42	476.4650		CB-60	476.9125	

Channel	Frequency (MHz)		Channel	Frequency (MHz)	
	RX	TX		RX	TX
CB-43 R	476.4875	477.2375	–	–	–
CB-43	476.4875		–	–	
CB-44 R	476.5125	477.2625	–	–	
CB-44	476.5125		CB-64	477.0125	
CB-45 R	476.5375	477.2875	CB-65	477.0375	
CB-45	476.5375		CB-66	477.0625	
CB-46 R	476.5625	477.3125	CB-67	477.0875	
CB-46	476.5625		CB-68	477.1125	
CB-47 R	476.5875	477.3375	CB-69	477.1375	
CB-47	476.5875		CB-70	477.1625	
CB-48 R	476.6125	477.3625	CB-71	477.1875	
CB-48	476.6125		CB-72	477.2125	
CB-49	476.6375		CB-73	477.2375	
CB-50	476.6625		CB-74	477.2625	
CB-51	476.6875		CB-75	477.2875	
CB-52	476.7125		CB-76	477.3125	
CB-53	476.7375		CB-77	477.3375	
CB-54	476.7625		CB-78	477.3625	
CB-55	476.7875		CB-79	477.3875	
CB-56	476.8125		CB-80	477.4125	

Radio Overview

This chapter explains the buttons and functions of the radio.

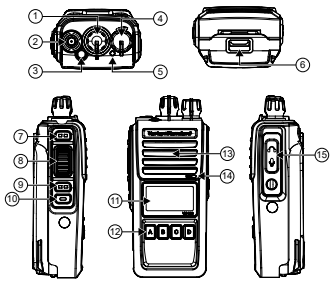


Figure 1: Radio Controls

Item Number	Name
1	Channel Selector knob
2	Antenna jack

Item Number	Name
3	Emergency Alarm button
4	Volume/Power knob
5	LED Indicator (programmable)
6	Battery Pack latch
7	Side-1 button
8	PTT button
9	Side-2 button
10	Side-3 button
11	Liquid Crystal Display (LCD)
12	4-Button Programmable Key
13	Speaker
14	Microphone
15	Microphone/Speaker jack (external micro-phone/speaker)

Programmable Buttons

The VX-556 has seven programmable keys. Your Motorola Solutions dealer can customize the programmable keys through programming to meet your communication or network requirements.

Table 5: VX-556 Programmable Key Functions

Programmable Buttons	Short Press	Press and Hold
Side-1 button	Backlight	Lock
Side-2 button	Power	Scan Channel
Side-3 button	Monitor	None
A button	Group Up	Set Priority Channel
B button	Channel Up	None
C button	Channel Down	None
D button	Group Down	PL/DPL Code Select

Status Indicators

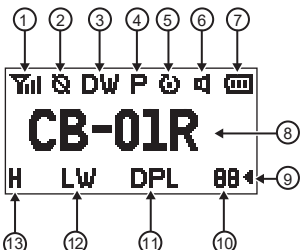


Figure 2: LCD Icons and Indicators

Item Number	Description
1	RSSI Indicator (four steps)
2	Encryption is activated
3	Dual watch is activated

Item Number	Description
4	Priority Channel
5	• Scan is enabled • Priority Scan is activated
6	Receiver Monitor
7	Battery Indicator
8	7-character alphanumeric display
9	Group Scan is enabled
10	Group Number
11	• PL: CTCSS System is activated • DPL: DCS System is activated
12	Lone Worker
13	• High/Low Transmit • Power Mode On

Getting Started

This chapter provides instructions on how to prepare your radio for use.

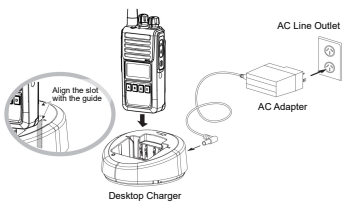
Charging the Battery

As the battery discharges during use, the voltage gradually becomes lower. When the battery voltage becomes too low, substitute a freshly charged battery and recharge the depleted pack. The Battery Indicator on the LCD of the radio blinks when the battery voltage is low.

Caution:

- Danger of explosion if battery is replaced with an incorrect battery. Replace only with the same or equivalent type.
- Always use the Motorola Solutions FNB-143 Lithium Ion (Li-Ion) battery pack.
- Do not expose battery pack to excessive heat such as sunshine or fire.
- Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
- Perform the battery charging where the ambient temperature range is + 5 ℃ to + 35 ℃. Charging out of this range could cause damage to the battery pack.
- Use only the Motorola Solutions AC adapter.

1. Insert the DC plug into the DC jack on the rear panel of the optional desktop charger.
2. Connect the AC adapter to the AC line outlet.
3. Insert the battery pack into the desktop charger by aligning the slots of the battery pack with the guides in the desktop charger.



4. If you are charging with the transceiver attached, turn off the transceiver. The antenna jack must be on the left side when viewing the charger from the front.

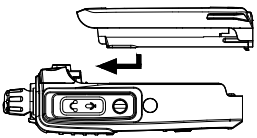
   If the battery pack is inserted correctly, the LED indicator changes to green.
5. Disconnect the battery pack from the desktop charger after the charging is completed.

   The LED indicator changes to green after charging is completed.
6. Unplug the AC adapter from the AC line outlet.

Attaching or Removing the Battery

Attaching the Battery

1. Align the battery pack to the radio with an offset of 0.5 in. from the top edge of the battery compartment.



2. Slide the battery pack upwards until it clicks into place.

Removing the Battery

1. Turn off your radio.
2. Remove any protective case.
3. Slide the battery pack on the bottom of the radio towards the front panel while sliding the battery down approximately 0.5 in.
4. Lift the battery out from the radio.

Caution: Do not attempt to open any of the rechargeable Li-Ion packs. The battery could explode if accidentally short-circuited.

Attaching or Removing the Antenna

Attaching the Antenna

Screw the supplied antenna onto the antenna jack. Only operate this transceiver with an antenna connected.

Caution: Refer to IP67 Water Resistance under Basic Features on page 13 for conditions for the radio to remain water resistant.

1. Turn the antenna clockwise onto the antenna jack to attach the antenna.
2. Turn the **Channel Selector** knob to choose the desired operating channel.

   The channel number appears on the LCD display.
3. Press **D** button repeatedly to select the desired Channel Group before selecting the operating channel.

   A Group Number appears on the LCD display whenever the **D** button is pressed.

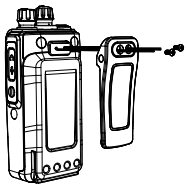
Removing the Antenna

1. Turn the antenna counterclockwise.
2. Remove the antenna from the receptacle.

Attaching or Removing the Belt Clip

Attaching the Belt Clip

Screw the belt clip provided with the radio into the screw holes for easy carrying.



Removing the Belt Clip

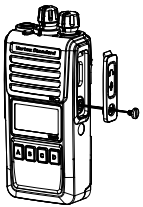
To detach the belt clip, remove the two screws from the screw holes.

Attaching the Universal Connector Cover

Caution:

- Use only the supplied screws when installing the microphone/speaker cover.
- This radio ceases to be water resistant (IP67: 1 m/30 min) when the microphone/speaker cover is not installed in the microphone/speaker jack.

Install the microphone/speaker cover with the supplied screws.



Turning the Radio On or Off

1. To turn on the radio, turn the **Volume/Power** knob clockwise.

2. To turn off the radio, turn the **Volume/Power** knob counterclockwise.

Basic Features

Microprocessor Controlled Frequency Synthesizer

Allows user-programmable control of scanning, channel memories, and selected feature options.

Voice Encryption

Protects the privacy of your communication from other groups.

Programmable Scan Function

Scans the selected UHF CB channels with both Group and Open Scan functions available.

Priority Channel

User programmable Priority Channel feature allows your working channel to be instantly recalled at the press of a programmable key.

High Contrast Liquid Crystal Display

Large LCD provides a visual indication of the selected channel and all selected functions at a glance.

Field Programming Mode

Allows the user to change the receiving frequency and Wide/Narrow receiver filter of the memory channel by simple operation of the keypad.

User Menu Mode

Allows the user to define or configure various settings of the radio by simple operation of the keypad.

In-Built CTCSS and DCS

User selectable Continuous Tone Coded Squelch System and Digital Coded Squelch system options provide silent channel operation on individual channels.

Time Out Timer (TOT)

This radio has a built-in TOT that automatically limits transmissions to a maximum of 3 min of continuous operation.

This feature is required by the ACMA to prevent accidental blocking of the frequency should your PTT switch become jammed or be otherwise pressed accidentally. The time-out period can be changed to a shorter time by your dealer.

IP67 Water Resistance

This radio is designed to meet the IP67 Water Resistance specification. The IP67 protects against the effects of immersion in water up to 1 m depth for 30 min.

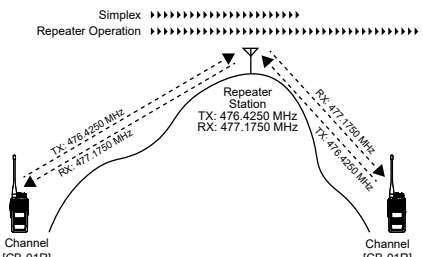
Note: Water resistance of the transceiver (IP67: 1 m/30 min) is assured only in the following conditions:

- Battery pack is attached to the transceiver.
- Antenna is connected to the antenna jack.
- Microphone/Speaker cover is installed in the microphone/speaker jack.

Repeater and Duplex Mode

Duplex operation allows the radio to transmit on a different frequency to that which it receives. This allows operation through repeater stations.

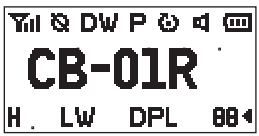
A repeater station consists of a linked transmitter/receiver combination installed in a prominent location. The repeater is designed to receive signals on a designated channel and retransmit them on another channel. Repeater stations, usually located on mountaintops or other high locations, provide a dramatic extension of the communication range for low-powered handheld or mobile transceivers.



Normally, UHF radios transmit and receive on the same frequency (known as Simplex operation). However to communicate through repeaters. Your radio must be able to transmit and receive on different channels (otherwise known as Duplex operation).

This radio can easily perform the Repeater operation by selecting the CH selector knob to the Repeater channel.

The Repeater channel is set within channels 1–8 and 41–48 that have been allocated for Repeater use. In the Repeater channel, the "R" notation appears on the right side of the channel indication. Refer to Frequency Tables on page 7 for details of the Channel List.

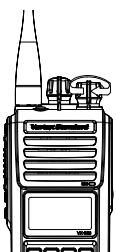


Basic Radio Operations

This chapter explains the operations of your radio.

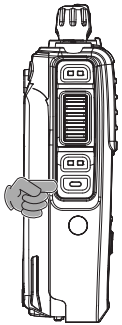
Adjusting the Volume

1. To set the volume level, rotate the **Volume/Power** knob.



2. If no signal is present, perform the following steps:

a) Press and hold the **Side-3** button.



You can now hear the background noise.

b) Set the **Volume/Power** knob to the desired audio level.

c) To silence the noise and resume normal (quiet) receive, release the **Side-3** button.

Selecting Channels

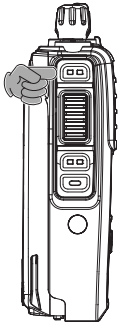
1. To choose the desired operating channel, turn the **Channel Selector** knob.

The channel number appears on the LCD screen.

2. To select the operating channel from a different channel group, press the **D** button repeatedly.
   A Group Number appears on the LCD display whenever the **D** button is pressed.

Turning Backlight On

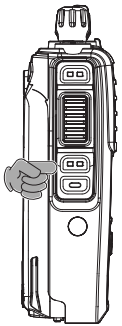
1. To illuminate the LCD display, short press the **Side-1** button (above the **PTT** switch) and **A** to **D** buttons for 5 sec.



2. To turn on the backlight when you are in a dark environment, short press the **Side-1** button.

Setting Power Level

1. To adjust the transmission power level, short press the **Side-2** button.



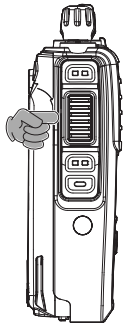
2. To switch to lower power to prolong the battery life, short press the **Side-2** button.
3. To return to high-power operation, press the **Side-2** button again.

Transmitting Audio

If the Busy Channel Lockout (BCL) feature is programmed on the channel, the radio does not transmit when a carrier is present. Instead, the radio generates short beep three times. To be clear of activity, release the **PTT** button and wait for the channel.

If the Busy Tone Lockout (BTL) feature is programmed on the channel, the radio can transmit only when there is no carrier being received or when the carrier being received includes the correct tone (CTCSS tone or DCS code) on the channel.

1. Monitor the channel and make sure it is clear to transmit.
2. Press and hold the **PTT** button.
3. Speak into the microphone area of the front panel grille in a normal voice level.
4. To return to the receive mode, release the **PTT** button.



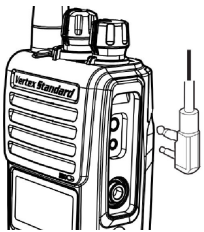
Note:

- The VX-556 has a Time-out Timer (TOT) that limits the length of each transmission to 1 min by default. It prevents prolonged transmission.
- The selected channel is maintained even when the transceiver is turned off.
- The CB-05/R and CB-35 channels are used for emergencies.
- The 5-tone Sequential System is not available on these channels. The 5-tone Sequential System is only available through Customer Programming Software (CPS).
- The CB-22 and CB-23 channels are used for telemetry and telecommand applications. Voice communication is not available on these channels.

- You can customize the VX-556 button functions through the Customer Programming Software (CPS).

Transmitting Audio with Wired Accessory

1. If a microphone/speaker (Mic/SP) is available, remove the Mic/SP cover and the mounting screw from the right side of the radio.



2. Align the connector of the Mic/SP on the radio body.
3. Hold the speaker grille up next to your ear while receiving.
4. Press the **PTT** button on the Mic/SP and speak into the microphone at a normal voice level.

Note:

- Save the original microphone/speaker cover and the mounting screw. You can reinstall the microphone/speaker cover and the mounting screw when you are not using the microphone/speaker.
- When you press the **PTT** button on the microphone/speaker, it disables the internal microphone, and vice versa.

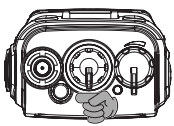
Using Keypad or Channel Selector Knob Lock

1. To lock the **Channel Selector** knob, press and hold the **Side-1** button.
   In Lock mode, the display shows **Lock** when you rotate the **Channel Selector** knob or press the programmable keys.
2. To disable Lock mode, press and hold the **Side-1** button.

Advanced Operations

Triggering Emergency Alarm

To trigger the alarm function, press and hold the **Emergency Alarm** button.



Scanning Radio Channels

The scanning feature is used to monitor multiple channels programmed into the transceiver.

1. To activate scanning, press and hold the **Side-2** button.
   Scanner searches for an active channel and pauses at a channel with an available signal.
2. To deactivate scanning, press and hold the **Side-2** button.
   Operation reverts to the channel displayed on the **Channel Selector** knob.

Monitoring Channels

1. Press and hold the **Side-3** button.
   You can now hear "white noise."
2. Set the **Volume/Power** button for the desired audio level.
3. To stop monitoring the channel, release **Side-3**.

Setting Priority Channels

1. To assign the current channel to a Priority Channel flag, press and hold the **A** button.
   A small `P` icon appears on the upper right corner of the display.
2. To remove the current channel from a Priority Channel flag, press and hold the **A** button.
   The small `P` icon disappears from the upper right corner of the display.

Selecting PL/DPL Code

Ensure that both stations select the same tone or code to use the CTCSS or DCS system.

1. To enable CTCSS or DCS system selection, press and hold the **D** button.

   Select CTCSS system for a continuous, subaudible tone on your transmitted audio. Select DCS system for a digital code on your transmitted audio.
2. Press and hold the **Side-D** button.
   The screen displays `rPL OFF`.
3. Press and hold the **Side-D** button again.
   The screen displays `tPL OFF`.
4. To select the desired subaudible tone or digital code, rotate the **Channel Selector** knob.
5. To activate, press any button, except the **Emergency Alarm** button.

The PL or DPL icon appears on the screen. If `DPL` is displayed, DCS system is activated. If `PL` is displayed, CTCSS system is activated.

Note: The CTCSS and DCS systems are not available on CB-05, CB-05R, and CB-35 channels because these are Emergency channels.

Activating User Mode

1. Press and hold **Side-2** button.
2. To select the function that you want to adjust, short press the **A** or **B** button.
3. To adjust the setting parameters, short press the **Side-2** or **Side-3** button.
4. To save the new setting, restart the radio.

User Menu Mode

User menu mode allows you to define or configure various settings. For more information, consult your authorized Motorola Solutions dealer.

Table 6: User Menu

Function	Parameter
SQL-X	SQL-0~SQL-5
SCTYPE-X	SCTYPE-1
	SCTYPE-2
	SCTYPE-3
MICGN-X	MICGN-1
	MICGN-5
	MICGN-9
SCTONE-X	SCTONE-0~SCTONE-5

Function	Parameter
VOXL-XXX	VOXL-HI
	VOXL-MID
	VOXL-LOW
TOT-XXX	TOT-030
	TOT-060
	TOT-090
	TOT-120
	TOT-150
	TOT-180
TONE-XXX	TONE-ON
	TONE-OFF
BSAV-XXX	BSAV-OFF
	BSAV-NOR
	BSAV-ENH

Table 7: SQL

Item	Description
Function	Sets the Squelch threshold level.
Available Values	SQL-0 to SQL-5
Default	SQL-5

Table 8: SCTYPE

Item	Description
Function	Sets the Scan Type.
Available Values	SCTYPE-1 to SCTYPE-3
Default	SCTYPE-1 **Note:** • SCTYPE-1: Simple Scan • SCTYPE-2: Priority Scan Type 1 • SCTYPE-3: Priority Scan Type 2

Table 9: MICGN

Item	Description
Function	Sets the MIC gain level.
Available Values	MICGN-1, MICGN-5, MICGN-9
Default	MICGN-5 **Note:** • MICGN-1: Minimum (Clear Voice) • MICGN-5: Normal • MICGN-9: Maximum (Whisper Mode)

Table 10: SCTONE

Item	Description
Function	Select call tone. The radio sounds the selected ring tone when a select call is received.

Item	Description
Available Values	SCTONE-0 to SCTONE-5
Default	SCTONE-1

Table 11: VOXL

Item	Description
Function	VOX sensitivity level.
Available Values	VOXL-HI, VOXL-MID, VOXL-LOW
Default	VOXL-MID  **Note:** • VOXL-HI: Highest sensitivity. For quiet environment. • VOXL-MID: Medium sensitivity. For normal environment. • VOXL-LOW: Lowest sensitivity. For noisy environment.

Table 12: TOT

Item	Description
Function	Time Out Timer. Maximum duration that you can transmit continuously.
Available Values	TOT-030, TOT-060,TOT-090, TOT-120, TOT-150, TOT-180
Default	TOT-060  **Note:** • TOT-030: The maximum duration of continuous transmission in 30 sec. • TOT-060: The maximum duration of continuous transmission is 60 sec. • TOT-090: The maximum duration of continuous transmission is 90 sec. • TOT-120: The maximum duration of continuous transmission is 120 sec. • TOT-150: The maximum duration of continuous transmission is 150 sec. • TOT-180: The maximum duration of continuous transmission is 180 sec.

Table 13: TONE

Item	Description
Function	Enables or disables the alert tone.
Available Values	TONE-ON or TONE-OFF
Default	TONE-ON

Table 14: BSAV

Item	Description
Function	Power-saving mode setting. Different settings can change the service life of the battery.
Available Values	BSAV-OFF, BSAV-NOR, BSAV-ENH

Item	Description
Default	BSAV-NOR **Note:** • BSAV-OFF: No battery saver. • BSAV-NOR: Turns off receiver less frequently. • BSAV-ENH: Turns off receiver more frequently.

Authorized Accessories List

Availability of accessories varies. Some accessories are supplied standard per local requirements, others may be unavailable in some regions. Check with your Motorola Solutions Dealer for changes to the authorized accessories list.

Table 15: Antennas

Part Number	Description
AN000429A01	Antenna

Table 16: Battery

Part Number	Description
PMNN4842_	7.4 V 2300 mAh Li-Ion battery pack

Table 17: Cable

Part Number	Description
CZ073CB002	Programming cable

Table 18: Carry Device

Part Number	Description
AAM34X601	CLIP-28 belt clip

Table 19: Power Supply Adaptor

Part Number	Description
PMPN4830_	Power supply adaptor, AU/NZ plug

Table 20: Earbuds and Earpieces

Part Number	Description
PMLN6532_	Swivel Earpiece with microphone/PTT
PMLN6533_	Earset with combined microphone/PTT
PMLN6534_	Earbud with in-line microphone/PTT/VOX
PMLN6536_	2-wire with trans tube, black

Table 21: Remote Speaker Microphone

Part Number	Description
PMMN4013_	Remote speaker microphone, RX-jack (2-pin)
PMMN4029_	Remote speaker microphone, IP57 (2-pin)