MOTOROLA SOLUTIONS

# TALKABOUT® TWO-WAY RADIO T4XX SERIES

**MN001126A01-AH**

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## For More Information

For further information, you may call Motorola Solutions at 1-800-448-6686 (Canada and U.S.), or visit us on the Internet at www.motorolasolutions.com/talkabout.

## Safety and General Information

### Caution

Before using this radio, read this booklet which contains important operating instructions.
For information on product details, brochures, user manuals and approved accessories, please refer to www.motorolasolutions.com.

### Compliance with RF Exposure Standards

National and international regulations require manufacturers to comply with the RF energy exposure limits for portable two-way radios before they can be marketed. Your Motorola Solutions two-way radio is designed, manufactured, and tested to comply with all applicable national and international regulations for human exposure to radio frequency electromagnetic energy.

### RF Energy Exposure Awareness and Control Information and Operational Instructions for General Population and Uncontrolled Environment Use

For more information on what RF energy exposure is, see the following websites:
- https://www.fcc.gov/
- http://www.who.int/peh-emf/project/en/
- http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf11467.html
- http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf01904.html

For additional information, see https://www.motorolasolutions.com/en_us/about/company-overview/corporate-responsibility/governance-and-policies.html

### Class B Digital Device

For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

**Note:** 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/TV technician for help.



### Operating Instructions

- Transmit no more than 50% of the time. To transmit (talk), press the **Push-To-Talk** (**PTT**) button. To receive calls, release the **PTT** button.
- Hold the radio in a vertical position in front of the face with the microphone (and other parts of the radio including the antenna) at least 1 in. (2.5 cm) away from the nose or lips. Antenna should be kept away from the eye.
- When worn on the body, always place the radio in a Motorola Solutions-approved clip, holder, holster, case, or body harness for this product.
- DO NOT hold the antenna when the radio is transmitting.
- DO NOT use any portable radio that has a damaged antenna. If a damaged antenna comes into contact with your skin, a minor burn can result.
- To ensure continued compliance with applicable RF exposure limits, use only Motorola Solutions-approved, supplied or replacement antennas, batteries, and accessories.
- For a list of Motorola Solutions-approved antennas please refer to your user manual or visit www.motorolasolutions.com

### Acoustic Safety

Exposure to loud noises from any source for extended periods of time may temporarily or permanently affect your hearing. The louder the volume of the radio, the sooner your hearing will be affected. Hearing damage from loud noise is sometimes undetectable at first, and can have a cumulative effect.
To protect your hearing, follow these precautions:
- Use the lowest volume necessary to do your job.
- Turn up the volume only if you are in noisy surroundings.
- Turn down the volume before putting on a headset or headphones.
- Limit the amount of time you use a headset or headphones at high volume.
- When using the radio without a headset or headphones, do not place the speaker of the radio directly against your ear.

### Medical Devices

If you use a personal medical device, such as a pacemaker or hearing aid, consult the manufacturer of your device to determine if it is adequately shielded from RF energy. Your physician may be able to assist you in obtaining this information.

### Operational Warnings

The following explains the operational warnings:

**For Vehicle With Air Bags**

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|---|---|
| WARNING | **Warning:**<br>• Refer to vehicle manufacturer's manual prior to installation of electronic equipment to avoid interference with air bag wiring.<br>• DO NOT place a portable radio in the area over an air bag or in the air bag deployment area. Air bags inflate with great force. If a portable radio is placed in the air bag deployment area and the air bag inflates, the radio may be propelled with great force and cause serious injury to occupants of the vehicle. |

**Potentially Explosive Atmospheres**

| | |
|---|---|
| WARNING | **Warning:**<br>• Do not carry a radio that is not certified for Hazardous Locations into a potentially explosive atmosphere. It could result in a serious injury or death. You should only use a radio certified for hazardous locations in potentially explosive atmospheres.<br>• Explosive atmospheres refer to hazard classified locations that may contain hazardous gas, vapors, dusts, such as fueling areas below decks on boats, fuel or chemical transferor storage facilities, and areas where the air contains chemicals or particles such as grain, dust or metal powders. Areas with potentially explosive atmospheres are often, but not always, posted.<br>• DO NOT remove, install, or charge batteries in such areas, or remove or install antennas. Sparks in a potentially explosive atmosphere can cause an explosion or fire resulting in bodily injury or even death. |

**Blasting Caps and Blasting Areas**

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|---|---|
| WARNING | **Warning:** To avoid possible interference with blasting operations, turn off your radio when you are near electrical blasting caps, in a blasting area, or in areas posted: "Turn off two-way radio." Obey all signs and instructions. |

### Batteries

| | |
|---|---|
| Caution | Use only Motorola Solutions approved batteries. Risk of explosion if the battery is replaced by an incorrect type. |

- Charge your battery using the approved Motorola Solutions charger.
- Use the battery in accordance with its water and/or dust Ingress Protection (IP) rating.
- Do not discard your battery into a fire.
- Do not replace the battery in any area labeled "Hazardous Atmosphere".



- Do not disassemble, crush, puncture, shred, or otherwise attempt to change the form of your battery.
- Do not dry a wet or damp battery with an appliance or heat source, such as a hair dryer or microwave oven.
- Do not allow conductive material such as jewelry, keys, or beaded chains to touch exposed battery terminals.

### Safety Instruction for Power Supply

1. The power supply is for use with equipment according to IEC/EN/UL 62368-1/60950-1.
2. The power supply is for indoor use in dry locations.
3. The equipment should be connected to a nearby and easily accessible socket outlet.
4. If the power supply is damaged or defective, do not repair or use the power supply.
5. For more details, please refer to https://www.motorolasolutions.com/en_xu/support/emea-compliance.html#phnav_other-products.

### Do Not Substitute Options or Accessories

The Motorola Solutions communications equipment certified as intrinsically safe by the approving agency (FM, UL, CSA, CENELEC) is tested as a complete system which consists of the listed agency approved portable, approved battery, and approved accessories or options, or both. This approved portable and battery combination must be strictly observed. There must be no substitution of items, even if the substitute has been previously approved with a different Motorola Solutions communications equipment unit. Approved configurations are listed by the approving agency (FM, UL, CSA, CENELEC).
The Intrinsically Safe Approval Label affixed to radio refers to the intrinsically safe classification of that radio product, and the approved batteries that can be used with that system.
The manual PN referenced on the Intrinsically Safe Approval Label identifies the approved accessories and or options that can be used with that portable radio unit.
Using a non-Motorola Solutions-intrinsically safe battery and/or accessory with the Motorola Solutions-approved radio unit will void the intrinsically safe approval of that radio unit.

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

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|---|---|
| | The European Union's WEEE directive requires that products sold into EU countries must have the crossed out trash bin label on the product (or the package in some cases). As defined by the WEEE directive, this cross-out trash bin label means that customers and end-users in EU countries should not dispose of electronic and electrical equipment or accessories in household waste. Customers or end-users in EU countries should contact their local equipment supplier representative or service centre for information about the waste collection system in their country. |

### Notice to Users (FCC and ISED)

This device complies with Part 15 of the FCC rules and ISED's 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.

### Supplier's Declaration of Conformity

| | |
|---|---|
| FC | **Supplier's Declaration of Conformity Per FCC CFR 47 Part 2 Section 2.1077(a)**<br><br>Responsible Party<br>Name: Motorola Solutions, Inc.<br>Address: 2000 Progress Pkwy, Schaumburg, Il. 60196.<br>Phone Number: 1-800-927-2744<br>Hereby declares that the product:<br>Model Name: T460, T465, T402<br>conforms to the following regulations:<br>FCC Part 15, subpart B, section 15.107(a), 15.107(d), and section 15.109(a). |

## FCC Licensing Information

**USA (FCC)/CANADA (ISED)**

According to FCC Part 95, FRS devices do not require a license. Use of Motorola radio in Canada is subject to the rules and regulations in ISED RSS 210 and do not require a license.

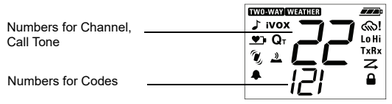
Changes or modifications not expressly approved by Motorola Solutions may void the user authority granted by the FCC or ISED to operate this radio and should not be made. To comply with FCC or ISED requirements, transmitter adjustments should be made only by or under the supervision of a person certified 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 (crystal, semiconductor, etc) not authorized by the FCC or ISED equipment authorization for this radio could violate FCC or ISED rules.

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



## Control Buttons

## Display Screen Guide

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|---|---|---|---|
| ♪ | Call Tone | | Battery Meter |
| | Battery Save | ! | Weather Alert |
| | Vibracall | Lo Hi | Power (high-low) |
| | Roger Tone | TxRx | Status (transmit/ receive) |
| iVOX | iVOX / VOX | | Scan |
| QT | Noise Filtering | | Lock |
| | Keypad Tone | | |

## Getting Started

### Weatherproof

This radio is weatherproof to IP-54 standards. It is dust/ splashproof from any direction. The radio is resistant to water and rain splashes only when the battery cover, headset accessory port, and micro-USB ports are sealed. Open the battery compartment door or headset port cover only when the radio is dry. Use of a headset accessory should be in dry environments only.
The micro-USB adaptor is not waterproof. Do not expose to rain or snow. Charge the radios only in a dry location. Do not charge wet radios. The battery door must be tightly closed with the screw to maintain the weatherproof seal of the radio.

### Installing the Batteries

Each radio can use either 1 NiMH rechargeable battery pack or 3 AA alkaline batteries and beeps when the batteries are low.

### Installing the NiMH Rechargeable Battery Pack (Optional Accessory)

1. Turn the radio off.
2. With the back of the radio facing you, loosen the retaining screw on the battery door and open the cover.
3. Remove the NiMH battery pack from the clear plastic bag (do not disassemble or unwrap the battery pack).
4. Insert the NiMH battery pack with the diagram facing you. (The ribbon should be underneath the battery pack and should wrap around the right side of the pack for easy removal).
5. Close the battery cover and tighten the retaining screw on the battery cover.

### Installing the Three AA Alkaline Batteries

1. Turn the radio off.
2. With the back of the radio facing you, lift the battery cover latch up and remove the cover.
3. Insert the three AA Alkaline batteries with + and – polarity as shown inside. (The ribbon should be underneath the AA alkaline batteries and should wrap around the right side of the batteries).
4. Close the battery cover and tighten the retaining screw on the battery cover.



### Radio Battery Meter

The radio battery icon shows the battery charge level, from full to empty. When the radio has one segment left, the radio chirps periodically or after releasing the **PTT** button (Low Battery Alert).

### Removing the NiMH Battery Pack

1. Turn the radio off.
2. With the back of the radio facing you, loosen the retaining screw on the battery door and open the cover.
3. Remove the NiMH battery pack by pulling the ribbon attached to the radio.
4. Close the battery cover and tighten the retaining screw on the battery door.

### Removing the Three AA Alkaline Batteries

1. Turn the radio off.
2. With the back of the radio facing you, loosen the retaining screw on the battery door and open the cover.
3. Gently remove each alkaline battery by easing each battery out individually.
4. Close the battery cover and tighten the retaining screw on the battery door.

**Note:**

- Exercise care when removing NiMH or AA batteries. Do not use sharp or conductive tools to remove either of these batteries.
- Remove the batteries before storing your radio for extended periods of time. Batteries corrode over time and may cause permanent damage to your radio.

### Battery Capacity Maintenance

1. Charge the NiMH batteries once every 3 months when not in use.
2. Before placing the radio in storage, remove the battery.
3. Store the NiMH batteries in temperature between -20 °C to 35 °C and in low humidity. Avoid damp conditions and corrosive materials.

### Using the Micro-USB Charger

The micro-USB charger is a handy port that allows you to conveniently charge your NiMH battery pack.
1. Make sure your radio is turned OFF.
2. Plug the micro-USB cable into the micro-USB charging port on your radio.
3. Connect the USB charger to a nearby and easily accessible wall power outlet.
4. An empty battery will be fully charged in 14 hours.
5. The battery meter on LCD will move to indicate the battery is charging.

**Note:**

- When moving between hot and cold temperatures, do not charge the NiMH battery pack until the battery temperature acclimates (usually about 20 minutes).
- For optimal battery life, remove the radio from the charger within 16 hours. Do not store the radio while connected to the charger.

### Attaching and Removing the Belt Clip

1. Attach the belt clip to the Talkabout plate at the back of the radio until the clip clicks in place.
2. Attach the belt clip to pocket or belt strap until the clip clicks in place.

*To Remove*

1. Pull the release tab on top of the belt clip to release the latch.
2. Push the belt clip with the other hand towards the top of radio.

### Turning your Radio On and Off

Turn clockwise to turn the radio on and counterclockwise to turn the radio off.
1. In the ON position, the radio chirps and briefly shows all feature icons available on the radio.
2. The display screen then shows the current channel, code and all features that are enabled. The radio is now in Two-Way mode.

### Setting the Volume

Press and hold for three seconds while rotating until you reach a comfortable listening level.
1. Rotate clockwise to increase the volume.
2. Rotate counterclockwise to decrease the volume.

Do not hold the radio close to your ear. If the volume is set to an uncomfortable level, it could hurt your ear.

## Talking and Listening

To communicate, all radios in your group must be set to the same channel and Interference Eliminator Code.
1. To talk, press and hold the **PTT** button. When transmitting, TWO-WAY icon blinks and Tx is shown. If it is a high power transmission, Hi is shown. If it is a low power transmission, Lo is shown.
2. When you are finished talking, release the **PTT** button.



3. When receiving, TWO-WAY icon blinks and Rx is shown. If it is a high power channel, Hi is shown. If it is a low power channel, Lo is shown.

For maximum clarity, hold the radio two to three inches away from your mouth and speak directly into the microphone. Do not cover the microphone while talking.

### Talk Range

Your radio is designed to maximize performance and improve transmission range. Do not use the radios closer than five feet apart.

### Power Boost

To boost the power of your radio to high power, press the top portion of the **PTT** button when talking. If you know your party is close by, you can conserve the energy of your battery by pushing the lower part of the **PTT** button to use less power.

**Note:** If you are on an FRS only channel (see "Channels and Frequencies") the radio will only use low power when either portion of the **PTT** button is pressed. Power Boost is not applicable for model T400.

### Monitor Button

Pressing and holding for three seconds allows you to listen to the volume level of the radio when you are not receiving. This allows you to adjust the volume, if necessary. You can also press to check for activity on the current channel before you talk.

### Push-to-Talk Timeout Timer

To prevent accidental transmissions and save battery life, the radio emits a continuous warning tone and stops transmitting if you press the **PTT** button for 60 continuous seconds.

### Mode Button

By pressing "mode" button, the user will be seamlessly switching between two-way and weather mode. When radio is in two-way mode, TWO-WAY will be shown. When radio is in weather mode, WEATHER will be shown. Corresponding setting and information will be shown on the LCD.

## Menu Options

### Selecting the Channel

Your radio has 22 channels. The channel is the frequency the radio uses to transmit. Channels 8-14 are FRS 0.5 watt only and all other channels are GMRS. (See the "Channels and Frequencies" table on overleaf for details).

1. With the radio on, press until the channel number starts to flash. When the radio is on a 0.5 watt channel, display shows Lo. When the radio is on a 1.5 watts channel, display shows Hi. The current channel flashes.
2. Press + or – and select an unused or quiet channel.
3. Press the **PTT** button to save the channel setting or to continue set up.

### Selecting the Interference Eliminator Code

Interference Eliminator Codes help minimize interference by blocking transmissions from unknown sources. Your radio has 121 Interference Eliminator Codes. Codes 1 – 38 are standard analog codes that appear on other FRS/GMRS radios. Codes 39 – 121 are additional digital codes added for superior interference protection. 0 is the off position, no analog or digital codes are enabled.

*To set the code for a channel:*

1. Press until the code starts to flash.
2. Press + or – to select the code.
3. Press the **PTT** button to save the code setting or to continue set up.

You can set a different code for each channel using this procedure. An extended press of + or – allows you to scroll through the Interference Code rapidly so you can quickly reach the code you want.

**Note:** On a radio that uses Interference Eliminator Codes, the code must be set to 0 to communicate with radios that do not have Interference Eliminator Codes. Select 0 for "no tone, no code" on the display of your radio.

### Setting and Transmitting Call Tones

Your radio can transmit different call tones to other radios in your group so you can alert them that you want to talk. Your radio has 20 call tones from which to choose.

*To set a call tone:*

1. Press until ♪ appears. The current call tone setting will flash.
2. Press + or – to change and hear the call tone.
3. Press the **PTT** button to set the new call tone or to continue set up.

To transmit your call tone to other radios set up to the same channel and Interference Eliminator Code as your radio, press ♪.

**Note:** Setting the call to OFF disables the call tone feature.

### Hands-Free Use Without Accessories (iVOX)

You can use the **iVOX** feature to transmit hands-free without the need for any headset accessories. Once **iVOX** is turned on, the radio detects your voice and transmits when you speak into the internal microphone.

1. Press until **iVOX** appears on the display. The current setting will flash.
2. Press + or − to select On or Off or set sensitivity L1, L2 or L3.
3. Press the **PTT** button to set or to continue set up.

### Hands-Free Use with Accessories (VOX)

You can transmit hands-free more reliable with the use of optional headset accessories. Once **VOX** is turned on, the radio detects your voice and transmits when you speak.
Many accessories (sold separately) are available for your radio. For more information, visit our website at www.motorolasolutions.com/TalkaboutAccessories or call 1-800-448-6686.

1. Turn the radio off and plug the **VOX** accessory into the accessory port.
2. Turn the radio on. **VOX** shows on the display.
3. Adjust the volume appropriately by rotating . Lower the volume before placing the accessory on your head or in your ear.
4. To turn off, simply remove accessory.

**Note:** There is a short delay between the time you start talking and when the radio transmits. There is a short delay before the transmission is completed.

### Setting the Sensitivity Level When in VOX Mode

Adjusting the sensitivity level of the radio helps minimize the possibility of unintended noises triggering a transmission and helps the radio pick up soft voices.

1. Press until **VOX** appears. The current setting (L1 – L3) will flash.
2. Press + or − to select the sensitivity level.
3. Press the **PTT** button to set or to continue set up.

**L3** = **High Sensitivity** for quiet environments
**L2** = **Medium Sensitivity** for most environments
**L1** = **Low Sensitivity** for noisy environments

**Note:** When you connect a headset, the radio is automatically set to the last chosen sensitivity level.

### Setting the Extended Battery Save Level ( )

This feature puts the radio into a low power "sleep" mode for cycle periods of 1, 2 or 3 seconds. The radio will briefly check for any channel activity after each sleep cycle. The sleep cycle repeats until a key is pressed or a call is received.

1. Press until appears. The current setting (L0, L1, L2 or L3) will flash.
2. Press + or − to select the battery save level.
3. Press the **PTT** button to set or to continue set up.

**L0** = Normal battery save mode
**L1** = 1 second extended battery save mode (low setting)
**L2** = 2 seconds extended battery save mode (mid setting)
**L3** = 3 seconds extended battery save mode (max setting)

**Note:**

1. Signals received during the sleep period will not be heard until after the timer period expires. The first 1 – 3 seconds of speech can be missed. Do not use (battery save) L1, L2 or L3 settings when immediate response may be required.
2. , **VOX**, **iVOX** and $Q_T$ modes are not available with extended battery save mode. Using , **VOX**, **iVOX** or enabling $Q_T$ will necessarily disable the extended sleep cycle battery settings.
3. Maximum battery life savings may be achieved only when usage is primarily in standby mode and very little TX or RX (talking or listening) use occurs. When RX or TX are often used, little or no battery life extension will occur.

### $Q_T$ Noise Filtering

The $Q_T$ noise-filtering feature helps to ensure uninterrupted communication with other Motorola Solutions radios that have this feature. This feature also filters out unwanted transmissions from other radios. This is useful in places where there is heavy radio traffic, such as amusement parks or ski resorts.

**Note:** $Q_T$ noise filtering is not available when the radio is scanning. $Q_T$ noise filtering is not available when extended battery save is set to L1, L2 or L3. In consequence the $Q_T$ will not appear in the Menu. You must set extended battery save to L0 in order to activate $Q_T$ noise filtering.

*To turn* $Q_T$ on or off:

1. Press until $Q_T$ displays. The current setting On/Off will flash.



2. Press + or − to select On or Off.
3. Press the **PTT** button to set or to continue set up.

*To transmit to a radio that has* $Q_T$ *noise filtering turned on:*

1. Select the same channel and Interference Eliminator Code as the other radio.
2. Press to send a call tone. This allows your voice to pass through the $Q_T$ noise filter on the receiving radio.
3. Press the **PTT** button and speak normally.

**Note:** Without first pressing , your message will not be heard. After this, for a 30-second period, starting after the last transmission, all transmissions received on the selected channel and code will pass through the noise filter. When radio goes to idle, will need to be pressed again to allow communication to pass through.

### VibraCall™ Alert

VibraCall™ is a vibrating alert that notifies you that your radio is receiving a message. This is useful in noisy environments.
When the alert is on, the radio vibrates once every 30 seconds when you receive a message on the channel and code you set.

1. To turn vibrating alerts on, press until is displayed. The current setting will flash.
2. Press + or − to change the setting to On/Off.
3. Press the **PTT** button to confirm or to continue set up.

**Note:** VibraCall™ Alert is not applicable for model T400.

### Keypad Tones

You may enable or disable the speaker key tones. You will hear the key tone each time a button is pushed.

1. Press until appears. The current setting On/Off will flash.
2. Press either + or − to turn On or Off.
3. Press the **PTT** button to confirm or to continue set up.

**Note:** When the key tone feature is off, the following are not disabled:

- Transmit timeout alert tone
- Call tone
- Low battery alert tone or
- The transmitted talk confirmation tone

### Transmitting a Talk Confirmation Tone

You can set your radio to transmit a unique tone when you finish transmitting. It is like saying "Roger" or "Over" to let others know you are finished talking.

1. With the radio on, press until the appears. The current setting On/Off flashes.
2. Press + or − to turn On or Off.
3. Press the **PTT** button to set or to continue set up.

## Special Features

### Emergency Alert Mode

The Emergency Alert feature can be used to signal members in your group of your need for urgent help. T4XX series radios will operate in an automatic "hands-free" emergency control mode for a total of 30 seconds after activating the Emergency Alert. T4XX series radios in your group will automatically advance the speaker volume to the maximum setting and sound a warbling alert tone for 8 seconds. The alert tone is emitted from your own radio speaker and the receiving radios in your group. After the 8 second alert, any spoken words or incidental sounds at your end will be transmitted to the group for 22 seconds. For the 30 second duration of Emergency Alert mode, T4XX series radio controls and buttons will be locked to maximize reception of the emergency message.

1. Press and hold the Emergency Alert button for 3 seconds.
2. Release the button the alert tone begins to sound. There is no need to continue to hold the Emergency Alert button or use **PTT** for your message to be transmitted.
3. After the alert tone ends you may speak into the microphone. Your voice or incidental sounds will be transmitted.
4. After 30 seconds your radio speaker will emit a Talk Confirmation Tone. Operation then returns to normal two-way mode.

**Note:** All Motorola Solutions Talkabout EM, MJ, MR, MT, MU and T4XX series radios (except for model T400) are fully compatible with the Emergency Alert feature. Radios other than EM, MJ and MR series can receive the emergency alert signal, but will not respond with adjusted volume settings, locked controls or a warbling alert tone. Users of other radio models set to the same channel and Interference Eliminator Code will hear a steady tone for 8 seconds followed by the voice transmission for 22 seconds.

**WARNING: The Emergency Alert feature should only be used in the event of an actual emergency. Motorola Solutions is not responsible if there is no response to the emergency alert from the receiving group.**



### Built-in LED Flashlight with Power Outage Function

Press the flashlight button to turn and keep the light on. Press the flashlight button again, the light is off.

**Note:** Turn off the flashlight when not in use to conserve battery power.

### Keypad Lock

*To avoid accidentally changing your radio settings:*

1. Press and hold until displays.
2. When in lock mode, you can turn the radio on and off, adjust the volume, receive, transmit, send a call tone and monitor channels. All other functions are locked.
3. To unlock the radio, press and hold until is no longer displayed.

### Scanning Channels

Use scan to search the 22 channels for transmissions from unknown parties, to find someone in your group who has accidentally changed channels or to quickly find unused channels for your own use.
There is a priority feature and 2 modes of scanning (basic and advanced) to make your search more effective. The basic scan mode uses the channel and code combinations for each of the 22 channels as you have set them (or with the default code value of 1). The "Advanced Scan" mode will scan all channels for any and all codes, detect any code in use and use that code value temporarily for that channel.
Priority is given to the "home channel", that is, the channel (and Interference Eliminator Code) your radio is set to when you start the scan. This means the initial channel (and code settings) is scanned more often than the other 21 channels and your radio will respond quickly to any activity occurring on the home channel as a priority.

*To start Scanning:*

1. Briefly press the key. The scan will appear in the display and the radio will begin to scroll through the channel and code combinations.
2. When the radio detects channel activity matching the channel and code combination, it stops scrolling and you can hear the transmission.
3. To respond and talk to the person transmitting, press the **PTT** button within five seconds after the end of the transmission.
4. The radio will resume scrolling through the channels five seconds after the end of any received activity.
5. To stop scanning, briefly press the key.

*To start Advanced Scanning*

1. Set the Interference Eliminator Code to "zero" or OFF.
2. Briefly press the key. The scan will appear in the display and the radio will begin to scroll through the channels. No Interference Eliminator Codes will filter what is heard.
3. When the radio detects channel activity with ANY code (or NO code), it stops scrolling and you can hear the transmission. Any Interference Eliminator Code that may be in use by that party will be detected and displayed.
4. To respond and talk to the person transmitting, press the **PTT** button within five seconds of the end of the transmission. The radio will transmit using the newly detected Interference Eliminator Code.
5. The radio will resume scrolling through the channels five seconds after the end of any received activity.
6. To stop scanning, briefly press the .

### Scanning Notes:

1. If you press the **PTT** button while the radio is scrolling through inactive channels, the transmission will be on the "home channel". Scanning will resume five seconds after the end of your transmission. You may press the key to stop scanning at any time.
2. If the radio stops on an undesired transmission, you may immediately resume the scan by briefly pressing + or −.
3. If the radio repeatedly stops on an undesired transmission, you may temporarily remove that channel from the scan list by pressing and holding + or − for three seconds. You may remove more than one channel in this way.
4. To restore the removed channel(s) to the scan list, turn the radio off and then turn back on, or exit and re-enter the scanning mode by pressing .
5. You cannot remove the home channel from the scan list.
6. In Advanced Scan, the detected code will only be used for one transmission. You must note that code, exit scan and set that detected code on that channel to permanently use the detected code.



## Weather Receiver

Your radio can tune in to broadcasts by the United States National Oceanic and Atmospheric Administration (NOAA) Weather Radio and Environment and Climate Change Canada (ECCC) Weather Radio. You can listen to a weather channel (see "Weather Channels and Frequencies" table for details) or set your radio to alert you to emergency weather broadcasts that interrupt routine broadcasts. When you listen to a weather channel, you cannot use your radio in scan mode or for two-way communications.
Both NOAA and ECCC have transmitters located throughout the United States and Canada, respectively. These transmitters broadcast watches, forecasts, and other information 24 hours a day.

**Note:** NOAA weather radio stations are assigned to cover specific areas and service may be limited. Please check with your local weather office for frequency and details or visit www.weather.gov/nwr in the US to view the appropriate transmitter for your area. The use of the NOAA logo does not provide an endorsement or implied endorsement by the National Weather Service of NOAA, nor does the use of the Weather radio logo provide an endorsement or implied endorsement by Environment and Climate Change Canada (ECCC).

### Entering Weather Mode

1. From two-way mode, press MODE to enter weather mode **WEATHER**.

### Setting the Weather Channel

Your radio receives weather frequencies:

1. In weather mode, press until weather channel number flashes.
2. Press + or − to select the appropriate channel with good reception in your area.
3. Press the **PTT** button to set or to continue set up weather alert.

### Setting the Weather Alert

Your radio can be set to respond to NOAA Weather Radio emergency messages. A special alarm tone sounds an alert and turns on the weather receiver to give you immediate weather and emergency information.

1. In weather mode press twice until **!** displays.
2. Press + or − to select On/Off.
3. Press the **PTT** button or to exit the weather menu set up.
4. Press MODE to return to two-way mode. If you activate Weather Alert and return to two-way mode **!** will display.

**Note:** When the weather channel is activated, either manually or after receiving an alert, and no buttons are pressed for 5 minutes, the weather mode will automatically revert back to two-way mode.

As with two-way radio reception, weather channel reception depends on how close you are to a transmitter and whether you are indoors or outdoors. Because weather channels are transmitted without codes, they may contain static or noise. Weather Alert will not function while actively transmitting or receiving in two-way mode.

### Weather Channels and Frequencies

| Weather Channel | Frequency | Weather Channel | Frequency |
|---|---|---|---|
| WX1 | 162.550 MHz | WX7 | 162.525 MHz |
| WX2 | 162.400 MHz | WX8 | 161.650 MHz |
| WX3 | 162.475 MHz | WX9 | 161.775 MHz |
| WX4 | 162.425 MHz | WX10 | 161.750 MHz |
| WX5 | 162.450 MHz | WX11 | 162.000 MHz |
| WX6 | 162.500 MHz | - | - |

## Channels and Frequencies

| Channel | Frequency | Max Power Output | Channel | Frequency | Max Power Output |
|---|---|---|---|---|---|
| 1 | 462.5625 MHz | 2 W | 12 | 467.6625 MHz | 0.5 W |
| 2 | 462.5875 MHz | 2 W | 13 | 467.6875 MHz | 0.5 W |
| 3 | 462.6125 MHz | 2 W | 14 | 467.7125 MHz | 0.5 W |
| 4 | 462.6375 MHz | 2 W | 15 | 462.5500 MHz | 2 W |
| 5 | 462.6625 MHz | 2 W | 16 | 462.5750 MHz | 2 W |
| 6 | 462.6875 MHz | 2 W | 17 | 462.6000 MHz | 2 W |
| 7 | 462.7125 MHz | 2 W | 18 | 462.6250 MHz | 2 W |
| 8 | 467.5625 MHz | 0.5 W | 19 | 462.6500 MHz | 2 W |
| 9 | 467.5875 MHz | 0.5 W | 20 | 462.6750 MHz | 2 W |
| 10 | 467.6125 MHz | 0.5 W | 21 | 462.7000 MHz | 2 W |
| 11 | 467.6375 MHz | 0.5 W | 22 | 462.7250 MHz | 2 W |

**Note:** Power refers to maximum allowable power as defined by FCC/ISED for each channel under FRS rules for USA and FRS/GMRS for Canada and is not a reflection of the power specification of the radio.



## Patent and Copyright Information

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## Warranty

### Consumer Two-Way Radio Products and Accessories purchased in the United States or Canada

### What Does this Warranty Cover?

Subject to the exclusions contained below, Motorola Solutions, Inc. ("Motorola") warrants the Motorola branded consumer two-way radios that operate via Family Radio Service or General Mobile Radio Service ("Products"), the Motorola branded or certified accessories sold for use with these Products ("Accessories") to be free from defects in materials and workmanship under normal consumer usage for the period(s) outlined below. This limited warranty is the exclusive remedy of a consumer, and applies as follows to new Products and Accessories and purchased by consumers in the United States or Canada, which are accompanied by this written warranty:

### Who is Covered?

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

### What will MOTOROLA SOLUTIONS, INC. do?

Motorola Solutions, Inc., at its option, will at no charge repair, replace or refund the purchase price of any Products or Accessories that do not conform to this warranty. We may use functionally equivalent reconditioned/ refurbished/ pre-owned or new Products or Accessories.

### What Other Limitations Are There?

**Any Implied Warranties, Including Without Limitation**
The implied warranties of merchantability and fitness for a particular purpose, shall be limited to the duration of this limited warranty, otherwise the repair, replacement, or refund as provided under this express limited warranty is the exclusive remedy of the consumers, and is provided in lieu of all other warranties, express or implied. In no event shall Motorola Solutions be liable, whether in contract or tort (including negligence) for damages in excess of the purchase price of the product or accessory, or for any indirect, incidental, special or consequential damages of any kind, or loss of revenue or profits, loss of business, loss of information or other financial loss arising out of or in connection with the ability or inability to use the products or accessories to the full extent these damages may be disclaimed by law.

Some states and jurisdictions do not allow the limitation or exclusion of incidental or consequential damages, or limitation on the length of an implied warranty, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary from state to state or from one jurisdiction to another.

| Products Covered | Length Of Coverage |
|---|---|
| **Products and Accessories** as defined above, unless otherwise provided for below. | **Two (2) years** from the date of purchase by the first consumer purchaser of the product unless otherwise provided for below. |
| **Batteries** whose fully charged capacity falls below 80% of their rated capacity and batteries that leak. | **Ninety (90) days** from the date of purchase. |
| **Products and Accessories** that are repaired or replaced. | **The balance of the original warranty or for ninety (90) days** from the date returned to the consumer, whichever is longer. |



### Exclusions From Warranty Coverage

**Normal Wear and Tear:**
Periodic maintenance, repair and replacement of Products or Accessories due to normal wear and tear.

**Abuse & Misuse:**
Defects or damage that result from: (a) improper operation, storage, misuse or abuse, accident or neglect, such as physical damage (cracks, scratches, etc.) to the surface of the Products and Accessories resulting from misuse; (b) contact with liquid, water, rain, extreme humidity or heavy perspiration, sand, dirt or the like, extreme heat, or food; (c) use of the Products or Accessories for commercial purposes or subjecting the Product or Accessory to abnormal usage or conditions; or (d) other acts which are not the fault of Motorola Solutions.

**Use of Non-Motorola branded 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.

**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.

**Altered Products**:
Products or Accessories with (a) serial numbers or date tags that have been removed, altered or obliterated; (b) broken seals or that show evidence of tampering; (c) mismatched board serial numbers; or (d) nonconforming or non-Motorola Solutions branded housings, or parts.

**Communication Services:**
Defects, damages, or the failure of Products or Accessories due to any communication service or signal you may subscribe to or use with the Products or Accessories.

### How to Obtain Warranty Service or Other Information?

To obtain service or information, please call

**USA and Canada Two-Way Radios**
1-800-448-6686.
www.motorolasolutions.com/talkabout

**For Accessories:**
Please call the telephone number designated above for the Product with which they are used.

You will receive instructions on how to ship the Products or Accessories at your expense, to Motorola Solutions or a Motorola Solutions Authorized Repair Center. To obtain service, you must include: (a) a copy of your receipt, bill of sale or other comparable proof of purchase; (b) a written description of the problem; (c) the name of your service provider, if applicable; (d) the name and location of the installation facility (if applicable) and, most importantly; (e) your address and telephone number.

**For more information, please visit us at:**

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