

# RF ENERGY EXPOSURE AND PRODUCT SAFETY GUIDE FOR PORTABLE TWO-WAY RADIOS

## ATTENTION!

Before using this product, read the RF Energy Exposure and Product Safety Guide that ships with the radio which contains instructions for safe usage and RF energy awareness and control for compliance with applicable standards and regulation.

## Package Contents

- 2 x TLKR T92 H20 Radio
- 2 x Whistle Belt Clip
- 1 x Car Charger with two USB cable
- 2 x Rechargeable 800mAh NiMH battery pack
- TLKR T92 H20 Manual

### Frequency Chart

Ch.	Freq. (MHz)	Ch.	Freq. (MHz)	Ch.	Freq. (MHz)
1	446.00625	4	446.04375	7	446.08125
2	446.01875	5	446.05625	8	446.09375
3	446.03125	6	446.06875		

## Features and Specifications

- 8 PMR Channels
- 121 Sub-Codes (38 CTCSS Codes & 83 DCS codes)
- Up to 10 km Range\*
- VOX
- Flashlight with WHITE and RED LED
- 20 Selectable Call Tone Alerts
- Backlit LCD Display
- Roger Beep
- Micro USB Connector for charging
- Battery Level Meter
- Channel Monitor
- Channel Scan
- Dual Channel Monitor

- Keypad Lock
- Auto Squelch Control
- Auto Repeat (Scrolling)
- Battery Low Alert
- Battery Low Sleep
- Tone (On/Off)
- Silent Mode (Vibrate Alert)
- Emergency Features
- Water-Activated Flashlight
- IP Rating: IP67
- Power Source: NiMH battery Pack / 3 x AA Alkaline batteries
- Battery Life: 16 Hours (under typical use conditions)

\* Range may vary depending on environmental and/or topographical conditions.

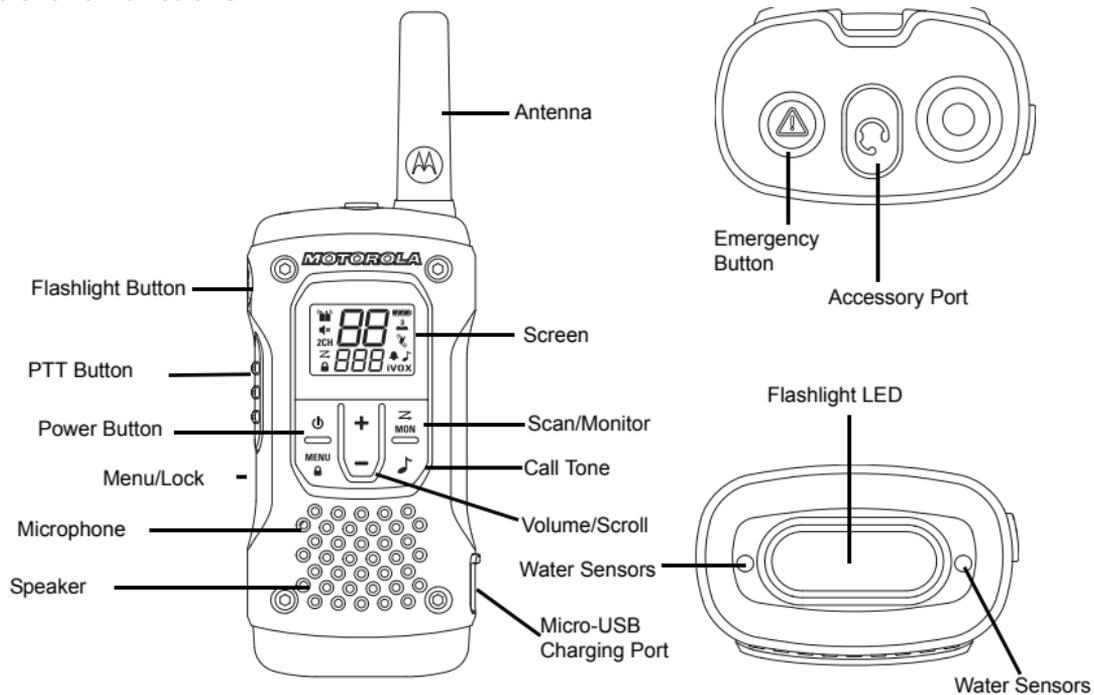
## Waterproof

This radio is waterproof to IP-67 standards. It will withstand submersion under up to 1 meter of water for up to 30 minutes. The radio is resistant to water, rain, and splashes only when the battery cover and headset accessory port 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.

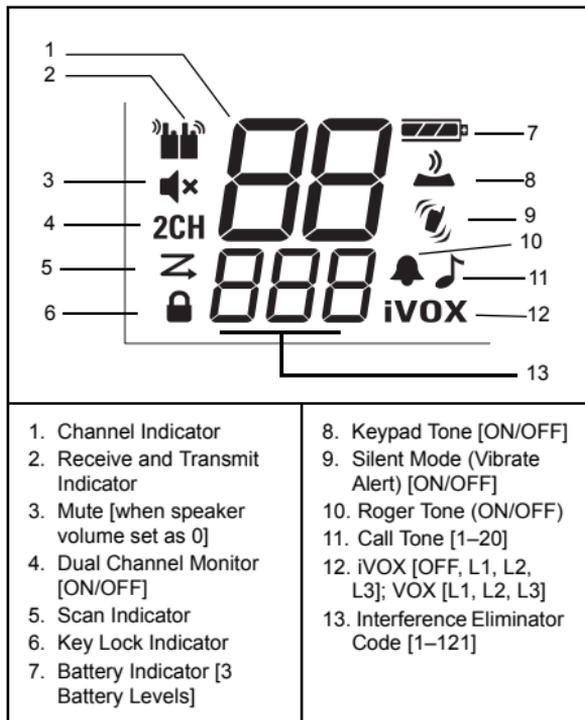
The charging base and AC adaptor are not waterproof. Do not expose the charger to rain or snow. Charge the radios only in a dry location. Do not place wet radios into the charging base.

**WARNING: This radio floats with the included NiMH battery (800mAh). It may not float with other batteries.**

## Control and Functions



## Display



## Installing the Batteries

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

### Installing the NiMH Rechargeable Battery Pack

1. Make sure your radio is turned 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 door.

### Installing the Three AA Alkaline Batteries

1. Make sure your radio is turned 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 wrap around the right side of the batteries).
4. Close the battery cover and tighten the retaining screw on the battery cover.

## Removing the Batteries

### Removing the NiMH Battery Pack

1. Make sure your radio is turned 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.
4. Close the battery cover and tighten the retaining screw on the battery door.

### Removing the Three AA Alkaline Batteries

1. Make sure your radio is turned 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 an extended period of time. Batteries corrode over time and may cause permanent damage to your radio.

### 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 PPT button (Low Battery Alert).

### Battery Capacity Maintenance

1. Charge the NiMH batteries once every three months when not in use.
2. Remove the battery from the radio after using for storage purposes.
3. Store the NiMH batteries in a 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. Connect the other end of the micro-USB charger to wall power outlet.

3. An empty battery will be fully charged in eight hours.
4. The battery meter bar will move when the battery is charging.

**Note:** It is recommended to power OFF your radio while charging. However, if power is ON while charging, you may not be able to transmit a message if the battery is completely empty. Allow time for the battery to charge to one bar before attempting to transmit a message.

When moving between hot and cold temperatures, do not charge the NiMH battery pack until the temperature acclimates (usually about twenty minutes).

For optimal battery life, remove the radio from the charger within sixteen hours. Do not store the radio while connected to the charger.

### Attaching and Removing the Belt Clip

1. Attach the belt clip to the TLKR 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. Push the release tab on top of the belt clip to release the latch.
2. Pull the belt clip away from the back of the radio.

### Turning your Radio On and Off

Press and hold the  Power button to turn the radio ON or 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.

## Setting the Volume

From Standby Mode, press on either  or  to show the current value. Press  or  again to adjust the volume setting.

1. Press  to increase the speaker volume.
2. Press  to decrease the speaker volume.

Do not hold the radio close to your ear. If the volume is set to an uncomfortable level, it could hurt your ear. Adjust '0' to mute the speaker.

## TALKING AND LISTENING

All radios in your group must be set to the same channel and Interference Eliminator Code in order to communicate.

1. Hold your radio 5–8 cm from your mouth.
2. Press and hold the PTT button while speaking. The Transmit  icon appears on the display.
3. Release the PTT button. You can now receive incoming calls. When you do, the Receive  icon appears on the display.

For maximum clarity, hold the radio two to three inches away and avoid covering 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.

## Monitor Button

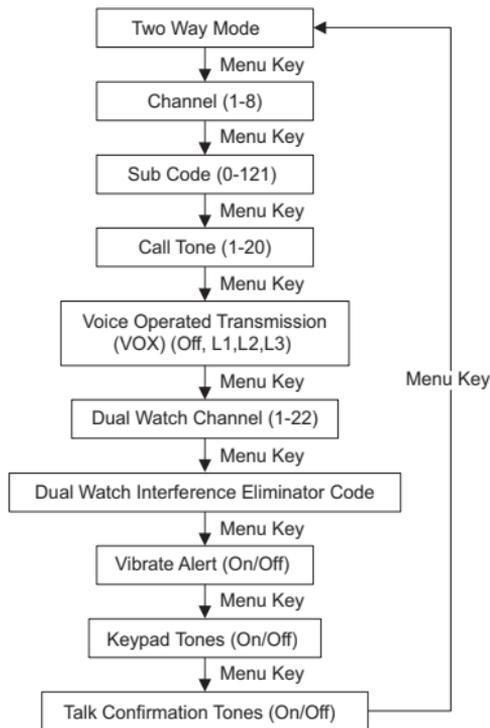
Pressing and holding  Scan/Monitor button three seconds allows you to listen to the volume level of the radio when you

are not receiving. This allows you to adjust the volume, if necessary. You can also press  Scan/Monitor button to check the activity on your current channel before you talk.

## Push-to-Talk Time-out 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 sixty seconds continuously.

## MENU OPTIONS



### Selecting the Channel

Your radio has eight channels. The channel is the frequency the radio uses to transmit.

1. With the radio ON, press Menu button until the channel number starts to flash.
2. Press or to change the channel. Long press on these keys allows you to scroll through the channels rapidly to browse the codes.
3. Press PTT button to exit menu or Menu button 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.

To set the code for a channel:

1. Press Menu button twice until the code "9" starts to flash.
2. Press or to select the code. You can press or hold to speed up scrolling through the codes.
3. Press the PTT button to exit menu or Menu button to continue set up.

### 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 for you to choose from.

To set a call tone:

1. Press Menu button three times until Call Tone appears. The current call tone setting will flash.
2. Press or to change and listen to the call tone.

3. Press the PTT button to exit menu or  Menu button to continue set up.

In order to transmit your call tone to other radios, set up the same channel and Interference Eliminator Code on your radio and press  Call Tone button.

### Voice Operated Transmission (VOX)

Transmission is initiated by speaking into the microphone of the radio instead of pushing the PTT button.

1. Press  Menu button 4 times until **VOX** icon appears on the display. The current setting (L1-L3) will flash.
2. Press  or  to select the sensitivity level.
3. Press the PTT button to exit menu or  Menu button to continue set up.

<b>L3 = High Sensitivity</b> for quiet environments
<b>L2 = Medium Sensitivity</b> for most environments
<b>L1 = Low Sensitivity</b> for noisy environments

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

### Dual Channel Monitor

Enables you to scan the current channel and another channel alternately.

To set another channel and start Dual Channel:

1. Press  Menu button 5 times until the Dual Channel **2CH** icon appears. The Dual Channel will flash.
2. Press  or  to select the channel then press  Menu button.
3. Press  or  to select the Interference Eliminator Code.
4. Press the PTT button to exit menu or  Menu button to continue set up.
5. The radio starts to Dual Channel.

**Note:** If you set the same channel and code as the current channel, Dual Channel Monitor OFF.

### Silent Mode (Vibrate Alert)

Silent Mode (Vibrate Alert) 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. Press  Menu button 7 times until Vibracall  icon is displayed. The current setting will flash.
2. Press  or  to change the setting to On/Off.
3. Press the PTT button to exit menu or  Menu button to continue set up.

### 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  Menu button 8 times until Keypad Tone  icon appears. The current setting On/Off will flash.

2. Press either  or  to turn On/Off.
3. Press the PTT button to confirm or  Menu button to continue set up.

**Note: The following are not disabled when the key tone feature is OFF:**

- Transmit time-out 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 have finished talking.

1. Press  Menu button 9 times until the Roger Tone  icon appears. The current setting On/Off flashes.
2. Press  or  to turn On or Off.
3. Press the PTT button to set or  Menu button to continue set up.

## Emergency Alert Mode

The Emergency Alert feature can be used to signal members in your group of your need for urgent help. T92 H2O radios will operate in an automatic "hands-free" emergency control mode for a total of 30 seconds after activating the Emergency Alert. T92 H2O 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, T92 H2O radio con-

trols 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 and the alert tone begin to sound. At the same time, it activates RED LED flash. There is no need to continue to hold the Emergency Alert button or use PTT for your message to be transmitted.

**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 Flashlight

Press the Flashlight button to cycle between OFF, RED Light, WHITE Light and then back to OFF again.

The Flashlight will turn off when you press the Flashlight button if the RED Light is left on for more than 3 seconds.

The Flashlight will turn off automatically after 30 minutes of non-activity if the battery level is below 50%.

**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  Menu button until Key Lock Indicator  icon displays.
2. You can turn the radio ON and OFF, adjust the volume, receive, transmit, and monitor channels when in the lock mode. All other functions remain locked.
3. Press  Menu button and hold until  Key Lock Indicator is no longer displayed to unlock the radio.

## Scanning

Use the scan function to do the following:

- Search the 8 channels for transmissions from unknown parties.
- 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 8 channels as you have set them (or with the default code value of 1).
- The “Advance Scan” mode will scan all channels for any and all codes; detect any code in use and use that code value temporary for that channel.
- Priority is given to the “Home Channel” (i.e. 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 7 channels and your radio will respond quickly to any activity occurring on the home channel as a priority.

### To start Basic Scanning:

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

### To start Advanced Scanning:

To set another channel and start Dual Channel Monitor:

1. Press the  Scan/Monitor button briefly. The Scan  icon will appear in the display and the radio will begin to scroll through the channels. No Interference Eliminator Codes will filter what is heard.
2. When the radio detects channel activities with ANY code (or NO code), it stops scrolling and you can hear the transmission. Any Interference Eliminator Code that may be used by other party will be detected and displayed.
3. When you 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. Press the  Scan/Monitor button briefly to stop scanning.

### Scanning Notes:

1. The transmission will be on the “Home Channel” if you press the PTT button while the radio is scrolling through inactive channels. You may press the  Scan/Monitor button to stop scanning at any time.
2. You may immediately resume the scan by briefly pressing the  or  if the radio stops on an undesired transmission.
3. You may temporarily remove that channel from the scan list by pressing and holding  or  for three seconds if the radio stops repeatedly on an undesired transmission. You may remove more than one channel this way.
4. Turn the radio OFF and then turn back ON, or EXIT and re-enter the scanning mode by pressing  Scan/Monitor

- button to restore and remove channel(s) to the scan list.
- You cannot remove the “Home Channel” from the scan list.
  - In the Advanced Scan, the detected code will only be used for one transmission. You must take note of that code, exit scan and set the detected code on that channel to permanently use the detected code.

## Water Sensor

When the radio comes in contact with water, the WHITE LED will begin flashing until the battery is dead. Press the Flashlight button to turn off the flashing LED.

## Warranty Information

The authorized Motorola dealer or retailer where you purchased your Motorola two-way radio and/or original accessories will honour a warranty claim and/or provide warranty service.

Please return your radio to your dealer or retailer to claim your warranty service. Do not return your radio to Motorola.

In order to be eligible to receive warranty service, you must present your receipt of purchase or a comparable substitute proof of purchase bearing the date of purchase. The two-way radio should also clearly display the serial number. The warranty will not apply if the type or serial numbers on the product have been altered, deleted, removed, or made illegible.

## What Is Not Covered By The Warranty

- Defects or damage resulting from use of the Product in other than its normal and customary manner or by not following the instructions in this user manual.
- Defects or damage from misuse, accident or neglect.
- Defects of damage from improper testing, operation, maintenance, adjustment, or any alteration or modification of any kind.
- Breakage or damage to aerials unless caused directly by defects in material or workmanship.

- Products disassembled or repaired in such a manner as to adversely affect performance or prevent adequate inspection and testing to verify any warranty claim.
- Defects or damage due to range.
- Defects or damage due to moisture, liquid or spills.
- All plastic surfaces and all other externally exposed parts that are scratched or damaged due to normal use.
- Products rented on a temporary basis.
- Periodic maintenance and repair or replacement of parts due to normal usage, wear and tear.

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