TALKABOUT T92 H2O

OWNER'S MANUAL

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 TALKABOUT T92 H2O Radio
- 2 x Whistle Belt Clip
- 1 x Power Supply
- 2 x Rechargeable 800mAh NiMH battery pack
- TALKABOUT T92 H2O Manual

Frequency Chart

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	448.7500	10	448.8625	19	449.1875
2	448.7625	11	448.8750	20	449.2000
3	448.7750	12	448.8875	21	449.2125
4	448.7875	13	448.9000	22	449.2250
5	448.8000	14	448.9125	23	449.2375
6	448.8125	15	448.9250	24	449.2500
7	448.8250	16	449.1500	25	449.2625
8	448.8375	17	449.1625	26	448.7375
9	448.8500	18	449.1750	27	449.1375

Features and Specifications

- 27 Analog Channels
- 121 Sub-Codes (38 CTCSS Codes & 83 DCS codes)
- Up to 10 km Range*
- iVOX/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)

Note: * Range may vary depending on environmental and/ or topographical conditions.
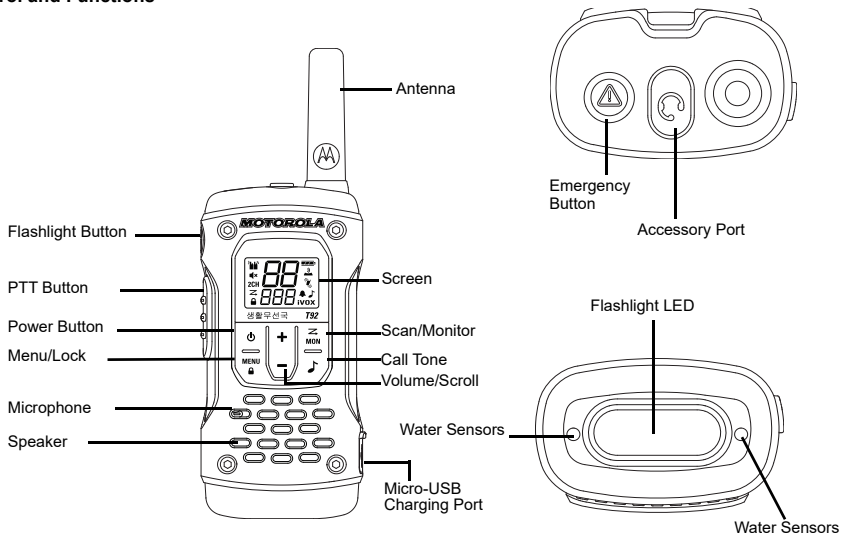
Maintenance

This radio is waterproof to IP-67 standards. It withstands submersion up to 1 meter of water for up to 30 minutes, 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. Installation of batteries and accessories should be in dry environments only. Ensure battery compartment and accessory port seals are free of all dirt and debris. To maintain audio quality, if the radio has been submerged in water, shake the radio briskly to remove water trapped inside the speaker grille and microphone port. It is recommended to rinse the radio with fresh water if it has been exposed to salt water to preserve the life of the radio.
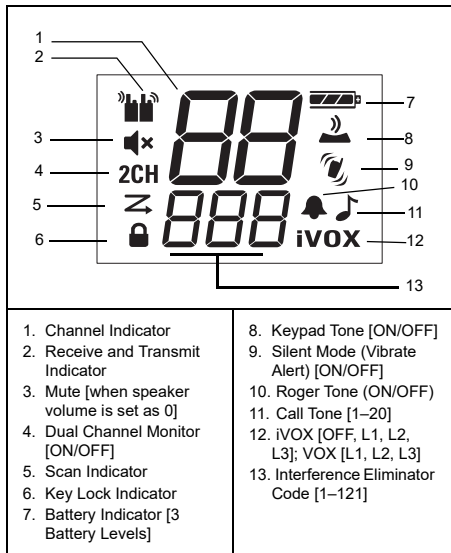
The charging base and AC adaptor are not waterproof. Do not expose the charger to rain or snow. Charge the radios only in a dry location. Do not place wet radios into the charging base.
WARNING: This radio floats with the included NiMH battery (800 mAh). It may not float with other batteries.

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Control and Functions

Antenna

Emergency Button

Accessory Port

Flashlight Button

PTT Button

Power Button

Menu/Lock

Microphone

Speaker

Screen

Scan/Monitor

Call Tone

Volume/Scroll

Micro-USB Charging Port

Flashlight LED

Water Sensors

Water Sensors

생활무선국 *T92*

Display

1. Channel Indicator	8. Keypad Tone [ON/OFF]
2. Receive and Transmit Indicator	9. Silent Mode (Vibrate Alert) [ON/OFF]
3. Mute [when speaker volume is set as 0]	10. Roger Tone (ON/OFF)
4. Dual Channel Monitor [ON/OFF]	11. Call Tone [1–20]
5. Scan Indicator	12. iVOX [OFF, L1, L2, L3]; VOX [L1, L2, L3]
6. Key Lock Indicator	13. Interference Eliminator Code [1–121]
7. Battery Indicator [3 Battery Levels]	

Installing the Batteries

Each radio can either use a one NiMH rechargeable battery pack or three units of AA Alkaline Battery.

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 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 Units of AA Alkaline Batteries
1. Make sure your radio is turned OFF.
2. With the back of the radio facing you, lift up the battery cover latch 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 Units of 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.
Ensure radio is fully dry before installing and removing batteries. The battery compartment seal should be free from dirt or debris before attaching the battery door.
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 beeps periodically or after releasing the **PTT** 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.
4. New or rarely used batteries can take several charge or discharge cycles to achieve optimal capacities.

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 8 hours.

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4. The battery meter bar moves when the battery is charging.

Note: When moving between hot and cold temperatures, do not charge the NiMH battery pack until the 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. To release the latch, push the release tab on top of the belt clip.
2. Pull the belt clip away from the back of the radio.

Turning your Radio On and Off

Press and hold the (ᵖ) 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 cm to 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 2 inches to 3 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 5 feet apart.

Monitor Button

Pressing and holding (MON) **Scan/Monitor** button 3 seconds allows you to listen to the volume level of the radio when you are not receiving. This action allows you to adjust the volume, if necessary. You can also press (MON) **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 60 seconds continuously.

Menu options

```
            ┌──────────────────────┐
            │    Two Way Mode      │◄─────────────┐
            └──────────────────────┘              │
                    │ Menu Key                    │
            ┌──────────────────────┐              │
            │   Channel (1-27)     │              │
            └──────────────────────┘              │
                    │ Menu Key                    │
            ┌──────────────────────┐              │
            │   Sub Code (0-121)   │              │
            └──────────────────────┘              │
                    │ Menu Key                    │
            ┌──────────────────────┐              │
            │   Call Tone (1-20)   │              │
            └──────────────────────┘              │
                    │ Menu Key                    │
    ┌──────────────────────────────────────┐     │
    │ Internal Voice Operated Transmission/ │     │
    │ Voice Operated Transmission (iVOX/VOX)│     │
    │          (Off, L1,L2,L3)              │     │
    └──────────────────────────────────────┘     │
                    │ Menu Key          Menu Key  │
            ┌──────────────────────┐              │
            │ Dual Watch Channel   │              │
            │       (1-22)         │              │
            └──────────────────────┘              │
                    │ Menu Key                    │
    ┌──────────────────────────────────────┐     │
    │ Dual Watch Interference Eliminator    │     │
    │              Code                     │     │
    └──────────────────────────────────────┘     │
                    │ Menu Key                    │
            ┌──────────────────────┐              │
            │ Vibrate Alert (On/Off)│             │
            └──────────────────────┘              │
                    │ Menu Key                    │
            ┌──────────────────────┐              │
            │ Keypad Tones (On/Off)│              │
            └──────────────────────┘              │
                    │ Menu Key                    │
    ┌──────────────────────────────────────┐     │
    │ Talk Confirmation Tones (On/Off)      │─────┘
    └──────────────────────────────────────┘
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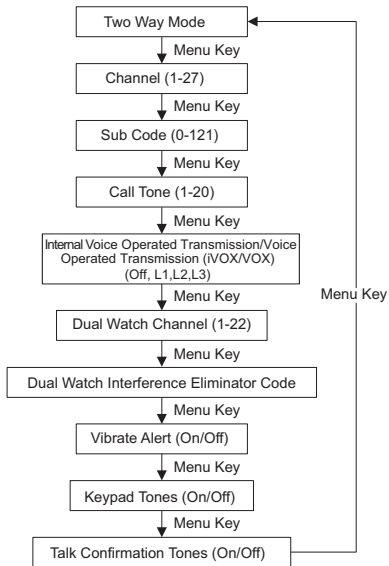
Selecting the Channel

Your radio has 27 channels. The channel is the frequency the radio uses to transmit.

1. With the radio ON, press (MENU) **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) **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) **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) **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) **Menu** button three times until Call Tone (♪) icon appears. The current call tone setting flashes.

2. Press (+) or (−) to change and listen to the call tone.

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3. Press the **PTT** button to exit menu or (MENU) **Menu** button to continue set up.

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.

Internal Voice Operated Transmission/Voice Operated Transmission (iVOX/VOX)

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

1. Press (MENU) **Menu** button four times until **iVOX** icon appears on the display. When the audio accessory is connected, the **VOX** icon is shown. The current setting (Off, L1-L3) flashes.

2. Press (+) or (−) to select the sensitivity level.

3. Press the **PTT** button to exit menu or (MENU) **Menu** button to continue set up.

L3 = **High Sensitivity** for quiet environments
L2 = **Medium Sensitivity** for most environments
L1 = **Low Sensitivity** 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) **Menu** button five times until the Dual Channel

   2CH icon appears. The Dual Channel flashes.

2. Press (+) or (−) to select the channel then press (MENU)

   Menu button.

3. Press (+) or (−) to select the Interference Eliminator Code.

4. Press the **PTT** button to exit menu or (MENU) **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 turns 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) **Menu** button seven 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) **Menu** button to

   continue set up.

Keypad Tones

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

1. Press (MENU) **Menu** button eight times until Keypad Tone 🔊

   icon appears. The current setting On/Off flashes.

2. Press either (+) or (−) to turn On/Off.

3. Press the **PTT** button to confirm or (MENU) **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) **Menu** button nine 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) **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 are transmitted to the group for 22 seconds. For the 30 second duration of Emergency Alert mode, T92 H2O radio controls and buttons are 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 even 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 all channels for transmissions from unknown parties.
- Find someone in your group who has accidentally changed channels or
- Find unused channels quickly for own usage.

There is a priority feature and two 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 27 channels as you have set them (or with the default code value of 1).
- The "Advance Scan" mode scans 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 Sub-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 seven channels and your radio responds quickly to any activity occurring on the home channel as a priority.

To start Basic Scanning:

1. Press the (MON) **Scan/Monitor** button briefly. The Scan ⇄ icon appears in the display and the radio begins to scroll through the channels and code combinations.
2. When the radio detects channel activities matching the channel and Sub-Code combination, the radio stops 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 resumes scrolling through the channels five seconds after the end of any received activity.
5. Press the (MON) **Scan/Monitor** button briefly to stop scanning.

To start Advanced Scanning:

1. Set home channel's Sub-Code to "zero" or OFF.
2. Press the (MON) **Scan/Monitor** button briefly. The Scan icon appears in the display and the radio begins to scroll through the channels. No Sub-Codes filter what is heard.
3. When the radio detects channel activities with ANY code (or NO code), it stops scrolling and you can hear the transmission. Any Sub-Code that may be use by other party is detected and displayed.
4. To respond and talk to the person transmitting, press the **PTT** button within five seconds after the end of the transmission.
5. The radio resumes scrolling through the channels five seconds after the end of any received activity.
6. Press the (MON) **Scan/Monitor** button briefly to stop scanning.

Note:

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 (MON) **Scan/Monitor** button to stop scanning at any time.
2. You may immediately resume the scan by briefly pressing (+) 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 off the radio and then turn back on, or exit and re-enter the scanning mode by pressing (MON) **Scan/Monitor** to restore the removed channel(s) to the scan list.
5. You cannot remove the "Home Channel" from the scan list.
6. 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.

Water Sensor

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

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Warranty Information

- The authorized Motorola Solutions dealer or retailer where you purchased your Motorola Solutions two-way radios and/or original accessories will honour a warranty claim and/or provide warranty service.
- In case of warranty claim, please contact retailers you purchased or call 02-485-5535. If you do not receive any appropriate action, please visit Cephas or authorized resellers. You are required to submit a proof of purchase.
- For safety purpose, we do not reuse the damaged parts after repair or replacement.
- Warranty period is one year.
- Motorola Solutions complies with the Regulations on the Consumer Dispute Resolutions by Korea Consumer Agency and provide warranty service accordingly.
- Within the warranty period, disorder by normal operation can be covered by warranty service.
- Batteries which show lower performance than 80% of nominal capacity within 6 months from the purchase date can be covered by warranty service.
- In case of any service request not owing to product disorder can be charged regardless of warranty period.

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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Notes

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