MOTOROLA SOLUTIONS T92 H2O Waterproof Two Way Radio User Guide

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MOTOROLA
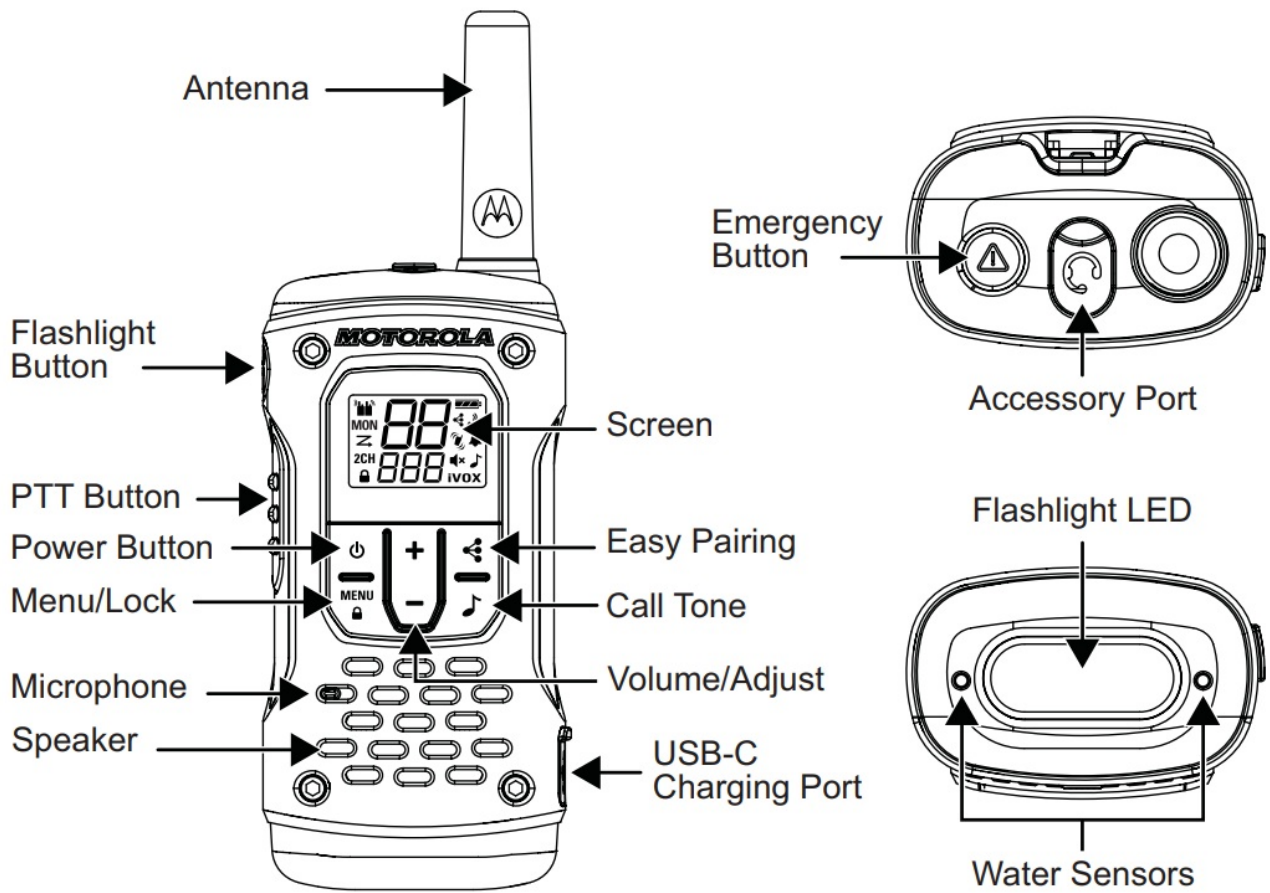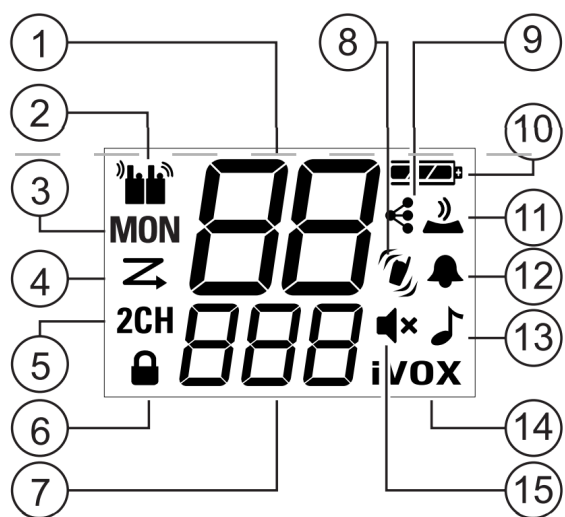
Buttons	Item Number	Descriptions
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Table 2: Buttons and Functionality

Buttons	Functionality
Power	Turn on or off the radio by pressing and holding the **Power** button.
Menu/Lock	- Enter and scroll through the menu by pressing the **Menu**/**Lock** button. - Lock or unlock the **Menu**/**Lock** button by pressing and holding the **Menu**/**Lock** button.
Volume/Adjust	- Adjust the volume level by pressing the + or − button. - Change the settings or trigger actions in the menu screen by pressing the + or − button.
PTT Button	- Talk by pressing and holding the **PTT** button. You can release the **PTT** button to stop transmission. - Exit by pressing the **PTT** button to exit menu screen and return to home screen.
Easy Pairing	Copy the channel and sub code settings from Radio A to Radio B. - Prepare Radio B for pairing by pressing and holding the **Easy Pairing** button until you hear a beep. - Broadcast the channel and sub code settings by pressing and holding the **Easy Pairing** button on Radio A until you hear a double beep. **Note:** You can copy from one radio to multiple radios simultaneously.
Call Tone	Send call tone (ring tone) to other radios by pressing the **Call Tone** button.
Flashlight	Turn on or off the flashlight and to change light color between red and white by pressing the **Flashlight** button. **Note:** Red light helps preserve vision in the dark. The flashlight turns off automatically after 30 minutes of non-activity or if the battery level is below 50%.
Emergency	Activate the Emergency Alert function by pressing and holding the **Emergency** button.

Installing and Charging Batteries

1. Turn off the radio.
2. Observe for polarity before installing the batteries.
3. Charge the battery by using the standard USB power source.
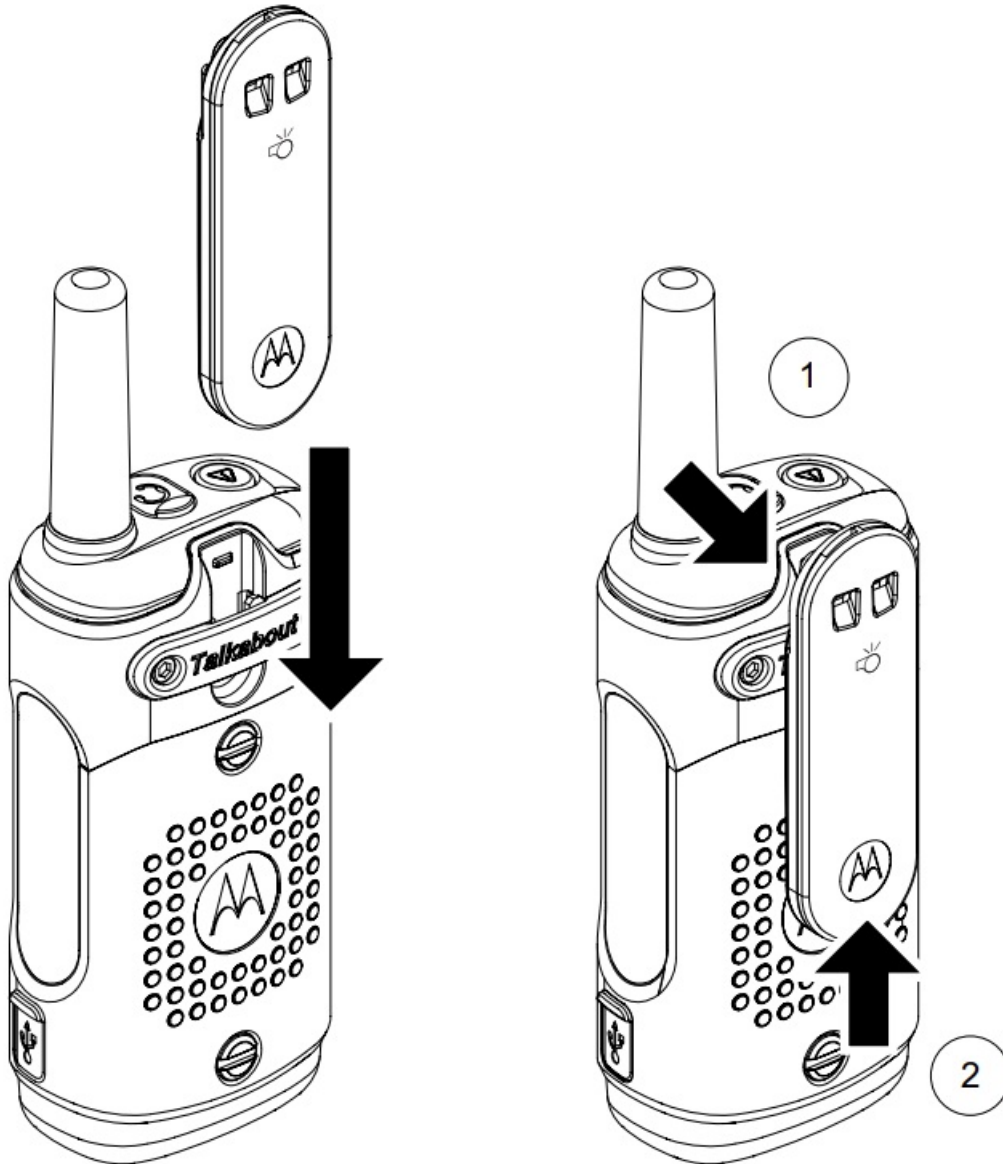4. Charging is complete when the battery icon on the radio stops blinking. Charging takes up to 8 hours.

Notes:

- You can use Alkaline AA batteries.
- Motorola Solutions recommends that you use only the battery that comes with your radio. Otherwise, your radio might sink.

Inserting and Removing a Belt Clip

- To perform the required actions, follow the numbering in the image.

Turning the Radio On and Off

- Hold the Power button until the display turns on or off.

Channels and Sub Codes

- You must set your radios with the same channel and sub code setting to enable communication with other radios.
- The channel setting controls the radio frequency. To avoid jamming, you can select a channel that is not used by others in your area. For more information on selecting unused channel, see Scan in Table 3.
- Match the sub code setting on the transmitting and receiving radios. Otherwise, the receiving radio blocks the

received signals. This feature helps you to mute unwanted voices from other radio users transmitting on your channel.

- When sub code is set to zero, radio does not block any signals. Everything that is picked up on the channel is sent to the speaker. Motorola Solutions recommends setting your sub code to zero if you are using T92 H2O radios with radios that do not support the sub code feature. For detailed instructions on ways to change settings, see Navigating the Menu Pages on page 1.You can copy channel and sub code settings from one radio to multiple radios simultaneously with the Easy Pairing feature.
  For ways to copy channel and sub code settings, see Radio Overview on page 1.

Navigating the Menu Pages

1. Use the Menu button to scroll through the menu screen.
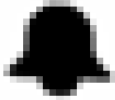2. Press the PTT to exit any screen and return to home screen.
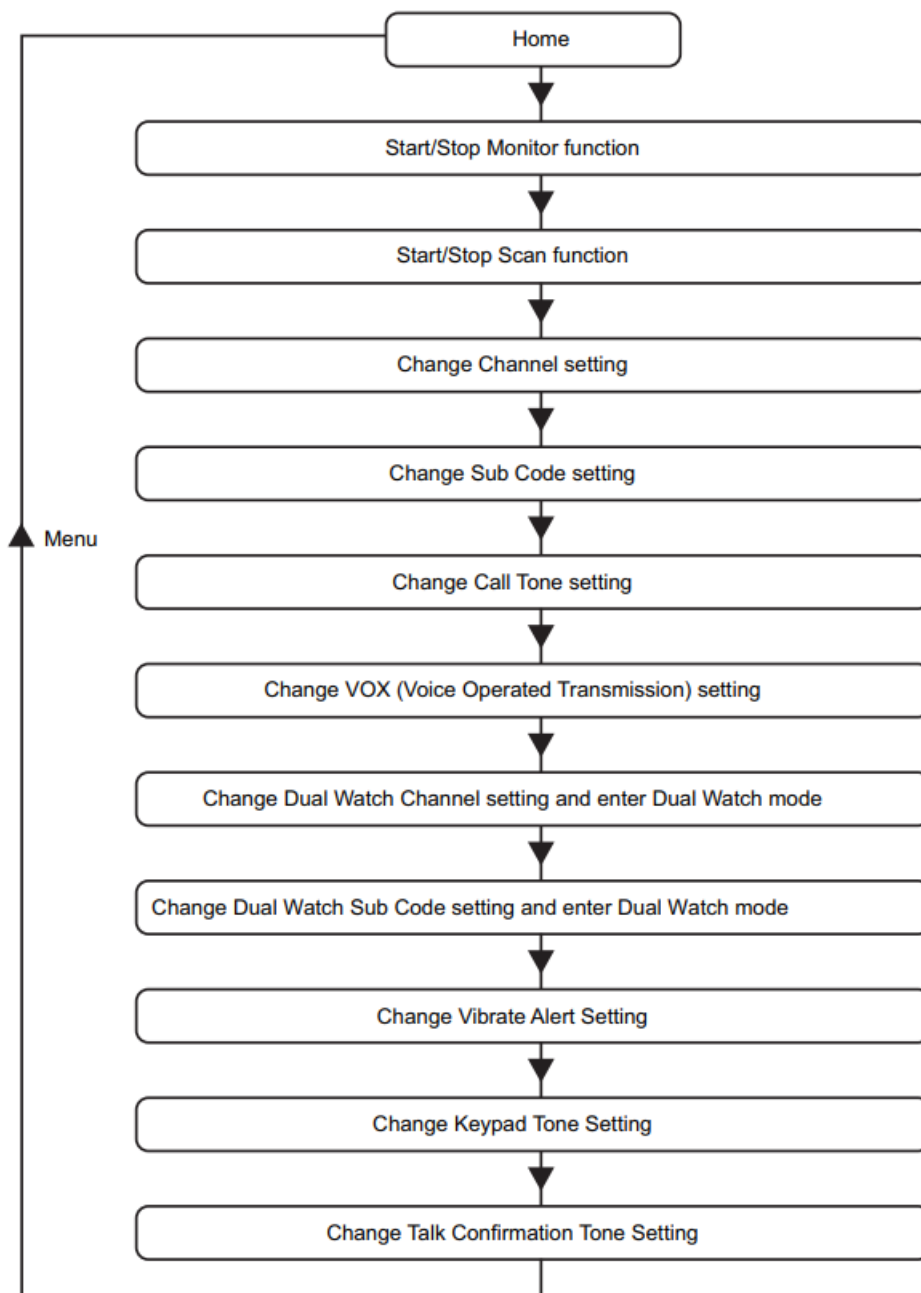
Menu Navigation

Table 3: Menu Navigation Instructions

Menu Screen	Use the + or – button to do the following:
Monitor **021**	Start or stop monitoring the airwave. You can hear signals transmitted on the channel setting of your radio. If there is no signal, you can hear static.
Scan Z→	Start or stop scanning the airwave. Radio scans all the channels one after another. When a signal is detected, you hear the signal on the speaker, and the radio displays the channel of the detected signal.
Adjust Channel (Channel number blinks)	• Change the radio channel settings. • Unlock channels 9 through 16 by pressing the **+** and **–** button simultaneously.
Sub Code setting (Sub Code number blinks)	Change the radio code setting.
Call Tone Setting ♪	Change the call tone sound. There are 20 different sounds available.
Adjust VOX **VOX** or **iVOX**	To change the Voice Operated Transmission (VOX) setting, select **OFF** or **L1** to **L3**. L3 is the most sensitive. Use L3 in quiet environments.
Dual Watch Channel Setting **2CH** (Channel number blinks)	In Dual Scan mode, the radio toggles between the main Channel/Sub Code setting and the Dual Scan Channel/Sub Code setting.
Dual Watch Sub Code Setting **2CH** (Channel number blinks)	• After you adjust the Dual Scan settings in Menu, do not push any button. Allow the radio to time out to Dual Scan mode. • From Dual Scan mode, press the **Menu** button to exit to Home screen. • From Dual Scan mode, the **PTT** button does not exit to Home screen.
Vibrate Alert Setting 🔊	Turn the Vibrate Alert on or off. When you turn on the Vibrate Alert, the radio vibrates when call is received. Vibration is paused for 30 seconds after each vibra- tion.
Keypad Tone Setting 🔊	Turn on or off the click sound when a key or a button is pressed.

Talk Confirmation Tone Setting	Turn the Talk Confirmation Tone on or off. This tone is transmitted when you release the **PTT** button, similar to saying "Roger" or "Over." This tone indicates to oath- errs that you have finished talking.

Radio Usage

Talking or Transmitting

1. Press and hold the PTT button, then start talking into the microphone.
2. Release the PTT button to stop transmission.

Note: Do not press the PTT button when others are talking. When more than one radio transmits on the same channel, the airwave is jammed, and all transmissions are lost.

Listening or Receiving

1. The radio speaker receives signal automatically if the radio is set to the same channel and code as the transmitting radio.
2. Ensure that the speaker volume is set to an appropriate level.

Adjusting Speaker Volume

- Press the + or – button from the home screen.

Headset Usage

- When a headset is connected to the radio, the radio speaker is disabled. Wear th connected headset to monitor and receive messages.
- If your headset has the PTT button, you can use the button to make a transmission with the microphone on the headset.
- You can still use the PTT button on the radio to make a transmission with the microphone on the radio

Additional Information

iVOX or VOX

The microphone detects if you are talking when using Internal Voice Operated Transmission (iVOX) or Voice Operated Transmission (VOX). If you are talking, the radio triggers the transmission automatically.

- When iVOX is displayed, the radio uses the built-in microphone to detect your voice.
- When a VOX headset is connected to the radio, VOX is displayed, and the headset microphone is used to detect your voice.

To select the VOX/iVOX sensitivity level, select the following settings:

Table 4: VOC/iVOX Sensitivity Level

Level	Descriptions
OFF	Turn off the VOX or iVOX settings.
L1	High Sensitivity for quiet environments. Speaking softly is enough to trigger the VOX or iVOX transmission
L2	Medium Sensitivity for most environments
L3	Low Sensitivity for noisy environments. Speak up to trigger the VOX or iVOX transmission

Note: Pressing the PTT button cancels the VOX or iVOX transmission.

Scan

Radio scans for voice activity by cycling through the channels. When signals are detected, the signal is sent to the speaker. Scan feature allows you to find out the channel that is used by other groups and has heavy traffic. Scan feature helps you to avoid busy channels when deciding the channel to use for your group.

Monitor

You can hear everything including noise on your current radio channel. This feature allows you to monitor a channel for weak signals.

Maintenance

This radio is waterproof to IP-67 standards. The radio can withstand submersion up to 1 meter of water for up to 30 minutes, but 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 must be in dry environments only. Ensure that the battery compartment and accessory port seals are free of all dirt and debris.

To maintain audio quality, if the radio is submerged in water, shake the radio briskly to remove water trapped inside the speaker grille and microphone port. Motorola Solutions recommends rinsing the radio with fresh water if the radio is exposed to salt water to preserve the life of the radio.

Water Sensor

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

Emergency Alert Mode

You can use the Emergency Alert feature to signal members in your group if you require urgent help. After pressing the Emergency button, a warbling alert tone is emitted from your radio and transmitted to the radios in your group. The T92 H2O radios in your group automatically advance the speaker volume to the maximum setting and sound a warbling alert tone for 8 seconds. After 8 seconds, the alert tone stops. Then, the radio is in hands free mode for 22 seconds, allowing you to talk without pressing the PTT button. For the 30 seconds duration of the Emergency Alert mode, T92 H2O radio controls and buttons are locked to maximize reception of the emergency message.

Warning: Use the Emergency Alert feature in case of emergency only. Motorola Solutions is not responsible if there is no response to the emergency alert from the receiving group.

Battery Information
The rated battery life is measured under the industrial standard 5-5-90 duty cycle under lab conditions. 5% of the time transmitting, 5% receiving with speaker on, and 90% waiting for incoming call. Risk of explosion if the battery is replaced by an incorrect type.

Caution: Use only Motorola Solutions approved batteries.

Battery Capacity Maintenance

- Charge the NiMH batteries once every three months when not in use.
- Do not leave the radio connected to a charger permanently.
- Remove the battery from the radio after using for storage purposes.
- Store the NiMH batteries in a temperature between –20 °C to 35 °C and in low humidity

Push-to-Talk Time-Out Timer

To avoid airwave traffic congestion, transmission ends after one minute even if the PT button is still pressed. You can reset the timer by releasing the PTT button briefly

Channels and Frequencies

This section shows the channels and its frequencies available for the radio.

Table 5: Channels and Frequencies

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	446.00625	9	446.10625
2	446.01875	10	446.11875
3	446.03125	11	446.13125
4	446.04375	12	446.14375
5	446.05625	13	446.15625
6	446.06875	14	446.16875
7	446.08125	15	446.18125
8	446.09375	16	446.19375

Note: Only Channels 1 to 8 are available by default. Unlock Channel 9 through 16 before you can select the channels. Use Channels 9 through 16 only in countries where these frequencies are allowed by the government authorities. Channels 9 to 16 are not allowed in Russia.

http://www.motorolasolutions.com/talkabout

Customer Support

MN009245A01-AA

Documents / Resources

	[**MOTOROLA SOLUTIONS T92 H2O Waterproof Two Way Radio**](#) [pdf] User Guide T92 H2O, T92 H2O Waterproof Two Way Radio, Waterproof Two Way Radio, Two Way Radio, Way Radio, Radio

References

- ⚛ [**TALKABOUT Consumer Walkie Talkies - Motorola Solutions**](#)
- [**User Manual**](#)