

T600PE/T600BR User Guide



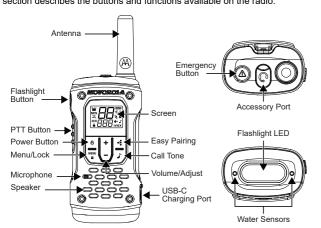
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Radio Overview

English

This section describes the buttons and functions available on the radio



Icons		Descriptions
	1 8 9 2 10 3 MON 2 11 4 2 11 5 2CH 4 J 13 6 14 7 15	1. Channel 2. Dual Channel 3. Monitor 4. Scan 5. Dual Scan 6. Lock 7. Sub Code 8. Battery 9. Easy Pairing 10. Keypad Tone 11. Silent Mode (Vibrate Alert) 12. Roger Tone 13. Mute 14. Call Tone 15. VOX or iVOX

	15. VOX or iVOX	
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 menu screen and return to home screen by pressing the PTT button.	
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.	
Emergency	Activate the Emergency Alert function by pressing and holding the Emergency 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 %.	

Radio Set-Up

This section provides information on how to set-up radios.

Installing and Charging Batteries

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

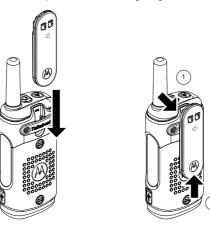
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NOTE:

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

Inserting and Removing the Belt Clip

. To insert or remove the belt clip, refer to the following images:



Turning the Radio On and Off

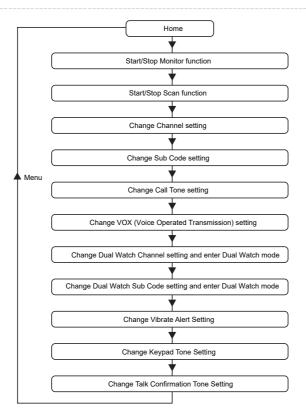
To turn the radio on or off, press and hold the Power button The LCD display turns on or off

Channels and Sub Codes

- 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, select a channel that is not used by others in your area. For more information on selecting unused channel, see Scan on page 1.
- 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 T600 series 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 options.
- 2. Press the PTT button to return to home screen.



Operations in the Menu Screen

This section shows you the operations available in the menu screen and its instructions

Menu Page	Use the + or - button to perform the following actions:
Call Tone Setting	Start or stop Call Tone transmission.
Monitor MON	Start or stop monitoring the air-wave. You can hear signals transmitted on the channel setting of your radio. If there is no signal, you can hear static.
Scan	Start or stop scanning the air-wave. Radio scans all the channels one after another. When a signal is detected.

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Menu Page	Use the + or - button to perform the following actions:
Z	you hear the signal on the speaker and the radio displays the channel of the detected signal.
Adjust VOX/iVOX VOX / 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.
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 others that you have finished talking.
Adjust Channel (Channel number blinks)	Change the radio channel setting.
Sub Code Setting (Sub Code number blinks)	Change the radio code setting.
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. • After you adjust the Dual Scan settings in Menu , do
Dual Watch Sub Code Setting 2CH (Sub code number blinks)	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 vibration.
Keypad Tone Setting	Turn on or off the click sound when a key or a button is pressed.

Radio Usage

This section shows the ways you can use your radio.

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. Set the radio to the same channel and code as the transmitting radio for the radio speaker to receive the signal automatically
- 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 the 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

This chapter explains the features of your radio

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

The microphone detects if you are talking when using iVOX or 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:

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

IP-67 Waterproof Rating

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 head 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

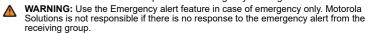
Table continued...

When the radio comes in contact with water, the white LED begins to flash until the battery is dead. Pressing the Flashlight button turns off the flashing LED. 1-3

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, an alert tone is emitted from your radio and transmitted to the radios in your group. The T600PE/T600BR series radios in your group automatically advance the speaker volume to the maximum setting and sound an 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, T600PE/T600BR series radio controls and buttons are locked to maximize reception of the emergency message.



Battery Information The rated battery life is measured under industrial standard 5-5-90 duty cycle under lab conditions, 5 % of the time transmitting, 5 % receiving with speaker on, 90 % waiting for

Risk of explosion if the battery is replaced by an incorrect type.

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 **PTT** 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.

Channels and Frequencies for Brazil

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	462.5625	14	467.5625
2	462.5750	15	467.5750
3	462.5875	16	467.5875
4	462.6000	17	467.6000
5	462.6125	18	467.6125
6	462.6250	19	467.6250
7	462.6375	20	467.6375
8	462.6500	21	467.6500
9	462.6625	22	467.6625
10	462.6750	23	467.6750
11	462.6875	24	467.6875
12	462.7000	25	467.7000
13	462.7125	26	467.7125

Channels and Frequencies for Peru

Channel	Frequency (MHz)	Max Power Output (W)	Channel	Frequency (MHz)	Max Power Output (W)
1	462.5625	0.5	8	467.6625	0.5
2	462.5875	0.5	9	467.6875	0.5
3	462.6125	0.5	10	467.6125	0.5
4	462.6375	0.5	11	467.6375	0.5
5	462.6625	0.5	12	467.6625	0.5
6	462.6875	0.5	13	467.6875	0.5
7	462.7125	0.5	14	467.7125	0.5

Licensing Information

The frequency general use is subject to the Resolution nº 680 and to the Act nº 14448, Item 15–Radio Communication Equipment of General Use. It is not required use license in Brazil. See the Anatel site for more information at http://www.anatel.gov.br.

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

Radio 462 - 467 MHz

This equipment has no rights to the protection against harmful interference and it cannot cause interferences to the duly authorized systems.

This device is homologated by Anatel according the regulatory procedures to compliance evaluate for telecommunications devices and it attends to the technical requirements applied, including the Specific Absorption Rate exposition limits related to the electrical relates, magnetic and electromagnetic of radio frequency. The maximum SAR values measured for this device are: 0.2860 W/Kg (Head) and 0.5690 W/Kg (Body).

Colectivo Familiar frequency use is subject to MTC RVM 388-200-MTC/15.03 and FCC

(FRS), Part 95B. No license is required for use in Peru.
Consult MTC Peru at http://www.mtc.gob.pe for more information

Safety and General Information



CAUTION: Before using this radio, read this section which contains important operating instructions. For more information on product details, brochures, user manuals, and approved accessories, refer to http://www.motorola

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

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, refer to 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, refer to https://www.motorolasolutions.com/en_us/about/ ity/governance-and-policies htm

Class B Digital

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 inches (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 accessories please refer to your user manual

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:

- 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 adding headset or earpiece
- Limit the amount of time you use headsets or earnieces at high volume
- When using the radio without a headset or earpiece, do not place the radio's speaker **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

MARNING:

- · Refer to vehicle manufacturer's manual prior to installation of electronic equipment to avoid interference with air bag wiring.
- 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:

- 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.
- 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 ospheres are often, but not always, posted.
- 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

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

⚠ 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
- Do not allow conductive material such as jewelry, keys, or beaded chains to touch
- exposed battery terminals

Safety Instructions 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 shall 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.motoro olutions.com/en xu/supp

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

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



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.

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 periods 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, will replace any Products or Accessories that do not conform to this warranty. We may use functionally equivalent 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

Latin America

Products Covered	Length Of Coverage
above, unless otherwise provided for below.	One (1) year from the date of purchase by the first consumer purchaser of the product
Batteries whose fully charged capacity falls below 80 % of their rated capacity and batteries that leak.	unless otherwise provided for below.
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

or parts.

The following section provides scenarios on warranty coverage exclusions				
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 one of the followings: 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. Contact with liquid, water, rain, extreme humidity or heavy perspiration, sand, dirt or the like, extreme heat, or food. Use of the Products or Accessories for commercial purposes or subjecting the Product or Accessory to abnormal usage or conditions. Other acts which are not the fault of Motorola Solutions.			
Use of Non-Motorola Solutions 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 one of the followings: Serial numbers or date tags that have been removed, altered, or obliterated. Broken seals or that show evidence of tampering. Mismatched board serial numbers. Nonconforming or non-Motorola Solutions branded housings,			

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Table continued.

Communication Defects, damages, or the failure of Products or Accessories due Services: 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, see the following table

Service Information	Country
	Toll Free:
	 Portuguese (Brazil) +55 11 3525-3055/3056 English +1 630-203-5824

For Accessories

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 the following

- · a copy of your receipt, bill of sale or other comparable proof of purchase
- a written description of the problem
- the name of your service provider (if applicable)
- the name and location of the installation facility (if applicable)
- · Your address and telephone number

How to Obtain More Information

Notes



Scan the QR code to view the online manual: https://

ttp://www.motorolasolutions.com/talkabout



Notes

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Notes

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