OUTSIDE OF COVER

MOTOROLA

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MOTOROLA

XTR446
PMR 446 TWO-WAY RADIOS
TALKIE-WALKIE PMR446

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PRODUCT SAFETY AND RF EXPOSURE FOR PORTABLE TWO-WAY RADIOS

⚠️ **Caution**

Before using this product, read the operating instructions for safe usage contained in the Product Safety and RF Exposure booklet enclosed with your radio.

ATTENTION!

Before using this product, read the RF energy awareness information and operating instructions in the Product Safety and RF Exposure booklet to ensure compliance with RF energy exposure limits.

Charger Safety Instructions

Before using the battery charger, read all instructions and cautionary markings on:

- the battery
- the battery charger, and
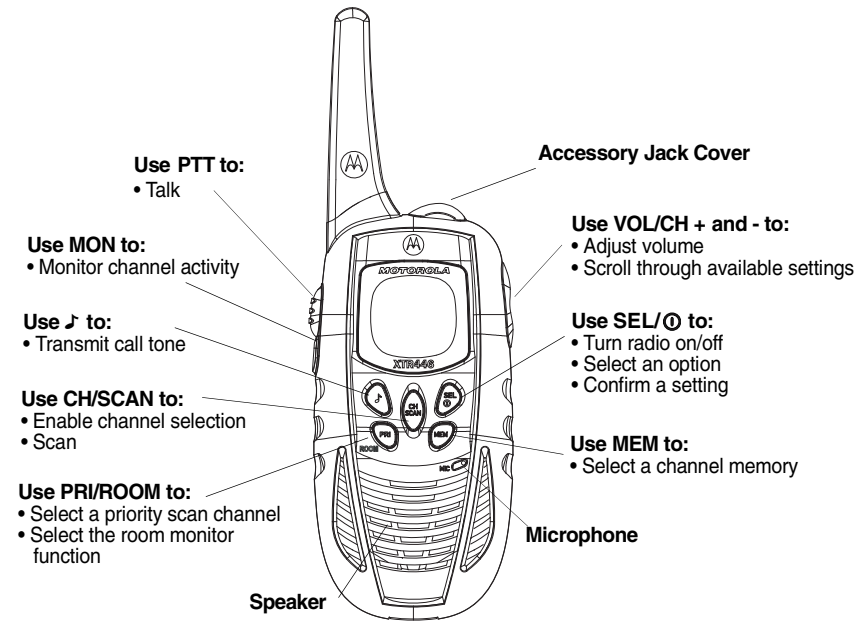- the radio using the battery.

⚠️ **Caution**

To reduce the risk of injury, only charge the Motorola approved rechargeable battery for this product. Other types of batteries may burst, causing personal injury and damage.

SAVE THESE INSTRUCTIONS

1. Do not expose the charger to rain or snow.
2. Do not operate or disassemble the charger if it has received a sharp blow, or has been dropped or damaged in any way.
3. Never alter the AC cord or plug provided with the unit. If the plug will not fit the AC outlet, have the proper outlet installed by a qualified electrician. An improper condition can result in a risk of electric shock.
4. To reduce the risk of damage to the cord or plug, pull the plug rather than the cord when disconnecting the charger from the AC outlet
5. To reduce the risk of electric shock, unplug the charger from the AC outlet before attempting any maintenance or cleaning.
6. Use of an attachment not recommended or sold by Motorola may result in a risk of fire, electric shock, or personal injury.
7. Make sure the cord is located so it will not be stepped on, tripped over, or subjected to damage or stress.
8. An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of fire and/or electric shock. If an extension cord must be used, make sure:
   - That the pins on the plug of the extension cord are the same number, size, and shape as those on the plug of the charger.
   - That the extension cord is properly wired and in good electrical condition, and
   - That the cord size is 18 AWG (1 mm^2) for lengths up to 100 feet (30 metres) and 16 AWG (1.3 mm^2) for lengths up to 150 feet (45 metres).
9. The supply cord of this charger cannot be replaced. If the cord is damaged please return to your place of purchase.

GETTING STARTED

English

Use PTT to:
• Talk

Accessory Jack Cover

Use MON to:
• Monitor channel activity

Use VOL/CH + and - to:
• Adjust volume
• Scroll through available settings

Use ♪ to:
• Transmit call tone

Use SEL/① to:
• Turn radio on/off
• Select an option
• Confirm a setting

Use CH/SCAN to:
• Enable channel selection
• Scan

Use MEM to:
• Select a channel memory

Use PRI/ROOM to:
• Select a priority scan channel
• Select the room monitor
  function

Microphone

Speaker

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English

Your New Radio

The Motorola XTR446 two-way radio operates on PMR446 frequencies, and can be used in any country where PMR446 frequencies are authorized, subject to applicable regulations. This license-free, two-way radio service is for family and group recreational use. Use of this radio outside the country where it was intended to be distributed is subject to government regulations and may be prohibited. Read this manual carefully and make sure you know how to operate the radio properly before use.

Please retain your original dated sales receipt for your records. For warranty service of your Motorola two-way radio you will need to provide a copy of your dated sales receipt to confirm warranty status.

Batteries and Battery Charging

The XTR446 radio operates with 4 AAA Alkaline batteries or a Nickel-Metal Hydride (NiMH) rechargeable battery pack (supplied with your radio).

Caution: **Do not disassemble the NiMH battery pack.**

Note: Remove batteries before storing your radio for extended periods. Batteries corrode over time and may cause permanent damage to your radio. Exercise caution when handling batteries that are leaking. Dispose of exhausted batteries at a designated battery disposal unit and not in the household waste.

Installing the Batteries

1. Lift the battery latch to release the battery cover.
2. Insert 4 AAA Alkaline batteries as shown by the markings inside the battery compartment. Alternatively insert the NiMH pack so that the charge contacts are facing outwards to connect with contacts on the battery cover.
3. Reposition battery cover and press battery latch down until it clicks into place.
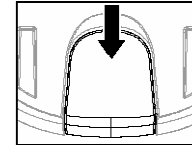
Twin Charger

The provides drop-in charging for two radios fitted with NiMH batteries. The charger can be placed on any flat surface, such as a desk or workbench. Charge the NiMH battery overnight (16 hours) before using it for the first time.

Caution: **Ensure that the radio is switched OFF before placing the radio in the charger.**

1. Connect the AC adapter to the socket on the rear of the charger.
2. Plug the AC power supply into a standard electrical outlet.
3. Place the radio into the charger pocket with the key-pad facing forward. The red LED will illuminate if the radio is properly inserted and will remain illuminated as long as the radio remains in the charger.
4. Charge the battery for 16 hours and then remove the radio from the charger.

Charging Status

The solid red indicator shows that the radio with NiMH battery is charging. A depleted battery will recharge to full capacity within 16 hours.

Note: When moving between hot and cold environments, do not charge the radio until the battery temperature acclimatises (usually about 20 minutes). For optimal battery life, remove the radio from the charger within 16 hours. Do not store the radio in the charger.

Turning Your Radio On and Off

1. Press and hold **SEL/①** for approximately 2 seconds to turn your radio on.

2. The radio chirps and the display briefly shows all feature icons that your radio has available.
   The display then shows the channel number 1-8, the interference eliminator code 00-38 and the battery meter.

3. Press and hold **SEL/①** for approximately 2 seconds to turn your radio off.

Volume

1. Increase the volume by pressing the **VOL/CH** side button (+). To decrease the volume press the **VOL/CH** side button (-). The volume level (0-7) is displayed for 5 seconds.

Keypad Tones

Every time you press a button on your radio, it beeps - except for **PTT** and ☺.

To enable or disable keypad tones, press and hold ☺ while switching your radio ON.

Battery Meter and Low Battery Alert

The battery level indicator ▬▬ , located in the top of the display, indicates the battery status. When the battery in the unit is low, the battery level indicator flashes. The radio will sleep when the voltage drops below a predetermined level, to protect the rechargeable battery.

Battery Life

The approximate (typical) battery life for:

• AAA Alkaline batteries is 20 hours
• NiMH batteries is 14 hours

This is based on a 5% transmit, 5% receive and 90% standby cycle.

Note: Battery life will be reduced if you regularly use Hands-Free (VOX) accessories.

Belt Clip

Your radio is supplied with two belt clips.

1. To attach, align the grooves of the belt clip with those of the back of the radio. Slide the belt clip downwards until a click is heard.

2. To remove, pull the release tab away from the radio back and slide the belt clip upwards.

English

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TALKING AND LISTENING

Your radio has 8 channels and 38 interference eliminator codes. If you are in a group and you wish to talk to each other, all radios must be set to the same channel and code. If you experience interference and need to change channel, ensure that you change the channel and code of all radios in your group. To talk to others using the radio:

1. Hold radio 5 to 7 centimetres from mouth.

2. Press and hold **PTT** and speak into the microphone.

   The $((($ $)))$ is displayed continuously whilst transmit-ting.

3. After speaking, release **PTT**. You can now receive

   incoming calls. Whilst receiving, the is displayed.

Talk Range

Your radio has been designed to maximize performance and improve transmission range in the field. It is recommended that you do not use the radios closer than 1.5 meters apart, to avoid interference.

Talk range depends on the terrain. It will be affected by concrete structures, heavy foliage and by operating radios indoors or in vehicles.

Optimal range occurs in flat, open areas, with up to 8 kilometres of coverage, if possible. Medium range occurs when buildings and trees are in the way. Minimal range occurs when dense foliage and mountains obstruct the communication path.

Optimal Range Outdoors	Medium Range Outdoors	Minimal Range Outdoors
Flat, open areas	Buildings or trees. Also near residential buildings	Dense foliage or mountains. Also inside some buildings

Monitoring Channel Activity

It is good radio etiquette to monitor the channel for activity before you transmit, to ensure that you do not interrupt other users already on the channel.

1. To monitor briefly, press and release **MON**. A flash-ing will be displayed. If you hear static, the chan-nel is clear for use. Obstacles that block the signal path may affect the strength of the incoming signal.

2. To monitor continuously, press and hold **MON** for 2

   seconds. The will continue to flash. Both the static

   noise and any signals will be heard.

3. To turn the monitor off, press **MON,** the will no

   longer be displayed.

Selecting a Radio Channel

1. Press **CH/SCAN**. The channel number will begin to flash.
2. Use the **VOL/CH** side button (+) or (-) to increase or decrease the displayed channel number.
3. Press **CH/SCAN** to set the channel.

Interference Eliminator Code

Interference eliminator codes help minimize interference by providing you with a choice of code combinations.You can specify a different code for each channel. each of the channels, *1-8*, may have any one of the codes, *00-38*, selected. Code *00* indicates no code selected and your radio can receive a signal regardless of the code setting on the transmitting radio.

Note: Handsets with different interference eliminator codes will not be able to communicate with each other.

1. Press **SEL/①**. The code number begins to flash.
2. Use the **VOL/CH** side button (+) or (-) to increase or decrease the displayed code number.
3. Press **SEL/①** 4 times to confirm the new code.

Channel Memory

Your radio allows you to store up to 10 combinations of channel and interference eliminator codes in memory.

To store the channel memory:

1. Press and hold the **MEM** button for two seconds. The **MEM** icon flashes and the memory number is also displayed.
2. Use the **VOL/CH** side button (+) or (-) to increase or decrease the displayed memory number.
3. Press **SEL/①** to set the memory number. The channel number is now displayed flashing.
4. Use the **VOL/CH** side button (+) or (-) to increase or decrease the displayed channel number.
5. Press **SEL/①**. The code number begins to flash.
6. Use the **VOL/CH** side button (+) or (-) to increase or decrease the displayed code number.
7. Press **SEL/①** to confirm the setting.

To use a channel using channel memory:

1. Press the **MEM** button. The **MEM** icon and the memory number appears on the display.
2. Use the **VOL/CH** side button (+) or (-) to select the memory number.
3. Press **SEL/①** to confirm the selection.

English

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English

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Scan

The scan facility allows you to easily scan all 8 channels. When an active channel is detected, the radio pauses on that channel until the channel is clear. After a 2 second delay, the radio will continue scanning.

1. To select the scanning function, press and hold **CH/SCAN** until **SCAN** is displayed. The radio will scroll through the channels.

2. If you activate scan while your code is set to $\square\square$, then the radio will check for any activity on each channel, regardless of the code in use on that channel.

3. If you activate scan while the code is set on $\square\,I$ to $\exists\,\square$, the radio will only check for activity on the specific channel and code combinations that are set on your radio.

4. When activity is detected on a channel, the radio will stop scanning and you will hear whatever transmissions are detected. The radio's display will show the channel and code on which activity was detected.

5. If you want to respond to the transmission, press **PTT** while the scan is paused on that channel.

6. To stop scanning, press **SEL/①**, ② or press and hold **CH/SCAN** for 2 seconds.

Priority Channel Scan Feature

Your radio has a priority channel scan feature that allows you to scan between current channel and priority channel. When an active channel is detected, the radio will pause on that channel until the channel is clear. Then after a 2 second pause, the radio will continue scanning. Pressing **PTT** while the scan is

paused on a channel will allow you to transmit on that channel.

To select the priority channel:

1. Press **PRI/ROOM**. The **PRI** icon is displayed and the priority channel will flash.

2. Use the **VOL/CH** side button (+) or (-) to increase or decrease the priority channel number displayed.

3. Press **SEL/①**. The priority channel code will flash.

4. Use the **VOL/CH** side button (+) or (-) to increase or decrease the code number displayed.

5. To start the priority channel scan, press **SEL/①**.

6. To exit the priority channel scan press **PRI/ROOM**.

Hands Free Use (VOX)

VOX allows you to talk "hands free" from the radio or when used with optional accessories connected to the radio.

Note: When using audio accessories with your radio, turn the volume of your radio down before you place the accessory on your head or in your ear.

To use the VOX feature:

1. Press and hold **SEL/①** to switch off your radio.

2. Open the accessory cover and insert the audio accessory into the accessory jack.

3. Press and hold **SEL/①** to switch on your radio.

4. Press **SEL/①** until the **VOX** icon is displayed. The current level (**oF**, $I\,\text{-}\,\exists$) will also flash. Selecting **oF** (OFF) disables VOX.

5.Use the **VOL/CH** side button (+) or (-) to select the desired sensitivity level.

  1 - If you speak softly, or are in a quiet environment.

  2 - Suitable for most applications.

  3 - If you speak loudly, or are in a noisy environment.

6.Press **SEL/①** 3 times to exit with the new level selected (the **VOX** icon stops flashing).

Room Monitor

When you set this feature the radio will detect voices/noises (according to the sensitivity level you set) and transmit back to the listening radio without having to press **PTT**.

The monitoring radio is not able to receive transmissions in this mode.

To use the Room Monitor function:

1.Press and hold **PRI/ROOM** for 2 seconds. The **BABY** icon flashes and the current level (*1-3*) is also displayed.

2.Use the **VOL/CH** side button (+) or (-) to select the desired sensitivity level.

3.Press **SEL/①** to confirm the level.

4.To turn the Room Monitor function OFF, press and hold the **PRI/ROOM** for 2 seconds or attentively turn the radio OFF and then ON again.

Automatic Power Save

This feature helps extend battery life. If there is no transmission nor an incoming call within 3 seconds, your radio switches to the Power Save mode. The radio is still able to receive transmissions in this mode.

Keypad Lock

The function disables all the buttons except for **PTT** and allows the radio to be turned on and off.

To lock the keypad:

1.Press **SEL/①** until 🔒 is displayed. The current status **oF** (OFF) flashes on the display.

2.To switch the Keypad Lock from off to on press the **VOL/CH** side button (+).

3.Press **SEL/①** to confirm the setting.

Note: If you exit the setting mode before confirming your selection by pressing **SEL/①**, the Keypad Lock setting will be set to **oF** (OFF).

To unlock the keypad:

1.Press and hold **SEL/①** to turn the radio OFF.

2.Press and hold **SEL/①** again to turn the radio ON. The keypad is unlocked.

Backlight

Your radio has a backlight which turns on when any button (except **PTT**) is pressed and turns off automatically 10 seconds after you last pressed a button.

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English

ALERTS

Call Tone

Your radio can transmit different call tones to other radios, alerting users on the same channel and code that you are about to talk. Your radio has 5 call tones to choose from.

1. To set your call tone press **SEL/①** until the **CALL icon** is displayed. The current call tone number (*1-5*) is also displayed flashing.
2. Use the **VOL/CH** side button (+) or (-) to change and hear the call tones while the setting number is flashing.
3. Press **SEL/①** 2 times to exit with the new call tone selected.
4. To tranmit the selected call tone, press ♪. The selected tone will automatically be transmitted for a fixed length of time. The Call Tone will be cancelled when **PTT** is pressed.

Talk Confirmation Tone

When you enable this feature, your radio transmits a chirp when you finish transmitting and release the **PTT**. It's like saying 'Roger' or 'Over', and lets others know you've finished talking.

To enable or disable this tone, Use the **VOL/CH** side button (+) as you turn your radio on.

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FURTHER INFORMATION

Troubleshooting

No power or erratic display	• Reposition, replace or recharge batteries.
Message not transmitted	• Make sure that the **PTT** button is completely pressed while you transmit. • Reposition, replace or recharge batteries. • Shared channel may be in use, try another channel.
Message not received	• Confirm radios have same channel settings and interference eliminator codes (helps minimize interference). • Make sure that the **PTT** button is not inadvertently being pressed. • Reposition, replace or recharge batteries. • Obstructions, and operating indoors or in vehicles may interfere with communication. Change your location. • Check to make sure volume is turned up.
Hearing other conversation or noise on a Channel	• Shared channel may be in use, try another.
Limited talk range	• Steel or concrete structures, heavy foliage and use in buildings and in vehicles will decrease range. Check for clear line of sight to improve transmission. • Wearing radio close to body such as in a pocket or on a belt will decrease range.
Heavy static or interference	• Radios too close. Radios must be at least 1.5 metres apart. • Radios too far apart. Obstacles interfere with transmission

English

Use and Care

To clean your radio:

- Use a soft damp cloth.
- Do not immerse in water.
- Do not use alcohol or cleaning solutions.

If your radio gets wet:

- Turn it off and remove batteries.
- Dry with soft cloth.
- Battery contacts may be wiped with a dry, lint-free cloth.
- Do not use until completely dry.

Specifications

Channels	8
Codes	38
Operating Frequency	446.00625-446.09375 MHz
Talk Range	Up to 8 kilometres, depending on terrain and conditions
Power Source	NiMH battery pack or 4 AAA alkaline batteries
Type Designation	XTR446
Transmitter Power (Watts)	0.5 ERP
Modulation Type	Phase (Angle)
Channel Spacing (kHz)	12.5

English

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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English

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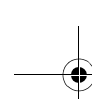
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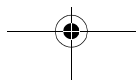
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S	SK	SLO					

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APPROVED ACCESSORIES LIST

Please contact your dealer or retailer to purchase these accessories.

Earbud with Push-To-Talk Microphone 00174
Discreet, lightweight earpiece with hand-operated lapel or collar mounted microphone. Allows clear communication without disturbance or interference.

Rechargeable NiMH Battery 00242
It is always nice to know you have good back up. A rechargeable battery pack - have one spare for those busy times.

**Charger Transformer
00239 (UK)
00240 (EU)**
Replacement transformer.Use with Twin Charger Pod 00241 (IXTN4010A)

Twin Charger Pod 00241
(IXTN4010A)
Use with Charger Transformer 00239 (UK) or 00240 (EU)

Nylon Carry 00173
Nylon pouch with a loop that attaches to your belt to hold your radio securely. Supplied with extra loops so you can fix to rucksacks or bikes. Can be used with audio accessories.

Headset with Boom Microphone 00179
Comfortable, lightweight headset eliminates background noise. Provides access to the voice activated transmission (VOX) mode. Ideal for situations which require hands-free operation.

Belt Clip 00243
Replacement belt clip

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