

Zartek[®]

PT8

User's Manual



INTRODUCTION

Congratulations! You have just purchased a new remarkable product in communications. The **Zartek PT8** is a basic yet very effective two-way radio. With this radio you can talk instantly to as large a group as required and as often as you like without airtime charges, giving you, family, friends, commercial and industrial colleagues many years of free quality communications.

Legislation allows you now to own and use this relatively powerful equipment without an operator's annual license from ICASA. This applies in most European countries as well as in all SADC (Southern African Development Community) countries.

To obtain maximum performance from your personal two-way radio, please take a few minutes to carefully read this user's manual. The **Zartek PT8** is a lightweight, palm-sized wonder communication device, so small you can carry anywhere and talk to any person who is set on the same channel, as long as they are within range. The range of the **Zartek PT8** is anything from 500m indoors to 5kms outdoors, depending on terrain and environment. The signal will bounce around and penetrate materials at the speed of light, bearing in mind the greater the barriers the more attenuation i.e. weakening of the signal.

The **Zartek PT8** is our exciting new generation series and uses the 446MHz band of frequencies often called the PMR (Public Mobile Radio) band. It is pre-programmed with 8 frequencies and is therefore channel compatible to the **Zartek** COM8, Pro8, ZA-748 and ZA7-25.

For further information contact us via email: info@zartek.co.za or visit our website www.zartek.co.za/

WARNING & PRECAUTIONS

- Read this manual before using the radio.
- Avoid prolonged direct exposure to sunlight and heat.
- Do not use batteries different from those specified in the instructions manual.
- Do not operate the radio in hazardous environments, explosion or fire may result.
- Do not operate the radio near unshielded electrical blasting caps. Under certain conditions, radio can interfere with blasting operations and may cause an explosion. Turn your radio OFF to prevent accidental transmission when in a “blasting area” or in areas posted “Turn your radio off”. Construction crews often use remote controlled RF devices to set off explosives
- Do not operate the radio in high humidity, dusty or very wet environment. If the device gets wet, immediately remove the battery and leave to dry fully for a few days. Water damage is usually irreparable.
- Do not attempt to modify the radio. The radio is designed to comply with CE and R&TTE.
- The LCD display is made of glass and maybe damaged if dropped or impacted.

WARRANTY

This product is warranted by Zartek against manufacturing defects in materials and workmanship under normal use for a 12 month period from date of purchase via our authorized appointed dealers.

CARE & SAFETY

To clean the radio, wipe with a soft cloth dampened with water. Never use solvents or cleaners on the radio, they can harm the body and leak inside, causing permanent damage.

Your radio is not splash proof or waterproof. If the radio gets wet, turn it OFF and remove battery immediately. Dry the battery compartment to minimize potential water damage. Leave cover off battery compartment and do not use until completely dry.

When storing for longer than 1 month, remove batteries from radios.

Disposal: All electrical and electronic products including batteries should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.

MAIN FEATURES

- PMR 446MHz license-free band
- Small & Compact
- 8 Channels / 38 CTCSS Codes
- LCD display with Backlight
- Range up to 5km, terrain dependent
- VOX Voice Activation, 3 levels
- APO, Auto Power Off
- Roger Beep
- 10 Call Tones
- Scan, Main Channel
- Volume, 8 levels
- Battery Level Indicator
- Transmit & Receive Indicator Icon

INSTALLING BATTERIES

This radio is designed to use 3 x AAA batteries



Photo A



Photo B

- Insert a coin to the battery door gap.
- Turn the coin with some force to open the battery door as shown on below photo A.
- Follow the polar directions and insert 3 x AAA size batteries.
- Close the battery door as show on photo B.
 1. Insert the battery door.
 2. Then, press down the battery door to close it tight.

Battery Low:

When you hear a "Beep Beep" sound, it indicates that the battery level is low. Please replace with new batteries.

⚠ WARNING

- Make sure the polarity of each battery is correct.
- When a battery is damaged or not working, dispose of it safely according to its instructions.
- Never discard a battery or place them close to fire or heat, otherwise, they may explode.
- Do not recharge or disassemble batteries.
- Do mix battery types or use old and new batteries together.
- Keep away from children. Seek immediate medical attention if swallowed.

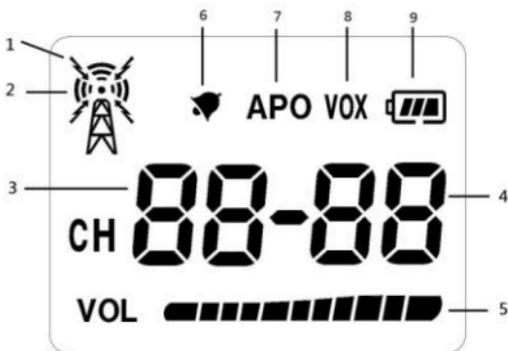
OPERATING TIME

A new set of batteries will give approximately **50 hours** of average use on duty cycle 5% transmit, 5% receive, 90% standby. Operating time is reduced with more activity.

OVERVIEW



LCD DISPLAY ICONS



1. Receive Signal
2. Transmit Signal
3. Main Channel
4. CTCSS Code
5. Volume Level
6. Key Tone
7. Auto Power Off Enable
8. VOX Enable
9. Battery Level

GENERAL OPERATION

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(1) POWER ON/OFF

- To power ON the radio, press **MENU** key for 2 seconds until a beep is heard and the LCD screen displays the channel and screen icons
- To power OFF the radio, press **MENU** for 2 seconds until LCD display turns off.

(2) MAKING COMMUNICATIONS

The radio has 8 main frequencies (large numbers) & 38 CTCSS codes (small numbers) effectively giving you 304 channels respectively. You can communicate with any other user who is using the same combination, providing they are within range.

(3) SPEAK TO ANOTHER RADIO

- Press & hold in the side PTT key, the LCD will show the transmit icon  indicating the radio is transmitting.
- Hold the radio in a vertical position with the microphone (situated on front middle of radio) 3-5 cm from your mouth and then speak.
- When you finish speaking, release the PTT key and a beep tone will be heard.

(4) LISTEN TO ANOTHER RADIO

- The radio will automatically receive audio transmissions from other radios sending on the same channel. A signal receive icon  will be displayed on the screen.
- Only one radio can transmit at a time so avoid pressing the PTT key until the received signal has ended. When you press the PTT key, you can't listen to other radios. Make sure you do not press the PTT key for listening.
- Adjust volume control if necessary.

(5) ADJUSTING SPEAKER VOLUME (8 LEVELS)

- Press the "+" key to increase the volume.
- Press the "-" key to decrease the volume.

(6) LAMP

- Press the side **LAMP** key to turn on the LCD backlight when necessary.
- Press the **LAMP** key again to turn off LCD backlight.

NOTE: Always turn off the LCD backlight after use, as keeping it on will drain the battery.

(7) TALK TIME-OUT FUNCTION

- Time-out function can avoid transmitting by chance and prolong the battery life.
- The radio will stop transmitting and sound a warning tone when PTT is held over 60 seconds. You then need to release PTT and press again for further transmission.
- In VOX mode, the unit will stop transmitting and sound a warning tone after continuous talk for 60 seconds. You can re-activate VOX after the time-out. (Please refer to VOX function for detailed VOX operation)

(8) TALK RANGE

The range will depend on the type of terrain that you are communicating across.

The **Zartek PT8** uses the UHF (Ultra High Frequency) band and will be subject to similar obstacle interference as cellular phones.

The radio works indoors as well as outdoors. Typical rough estimate ranges for different terrains are:

- Shopping centre 300m-500m
- Building 3-15 stories,
- City centre & dense bush 300m-1.5km,
- Residential & over water 1-3km,
- Farmland 1-4km,
- Top of mountain or building (elevated line-of-sight) 5-10km.

When you press the PTT talk button a signal is transmitted and the signal floods the area in all sideways directions. The signal travels in 3 different ways:

1) Penetration: The signal can go through materials such as wood, plastic, cement and fabric. The denser the material or more built up the environment the weaker the signal will become. The signal cannot go through solid metal or very large solid land structures such as a hill or mountain. Metal acts like a shield and that is why the performance from the inside of a vehicle (car or 4x4) will be less than outside.

2) Reflection: The signal cannot go through metal or very large structures such as a hill or mountain, but it can bounce off (like a mirror), go around and reflect in other directions as well. This happens at the speed of light.

3) Line-of-sight: Line-of-sight is when there are no obstructions in the path between the communicating parties. The higher up you go the further you can see, so the larger the line-of-sight distances will be. Generally you can talk to wherever you can see, which is why the coverage in a valley is much less than the coverage from on top of a hill.

Ensure that there is nothing blocking the antenna. The less metal in close proximity (0-2m) the better the range. There may be external interference from electrical equipment (power lines or factories) or natural causes (moisture in the air or storms) that may vary depending on the location and the weather.

(9) MENU FLOW CHART

Press the **MENU** key once to enter main channel selection, press **MENU** again for next function selection etc.

Main Screen → Main Channel → CTCSS → VOX → Call Tone → APO → Key tone → Roger Beep → Main Screen

(10) SELECT CHANNEL

To select the main channel

- Press the **MENU** key once, Main channel number displayed will flash.
- Press **+** or **-** key to select your desired main channel number.
- Press the **PTT** key to confirm and quit or press **MENU** to continue next function setting.
- You have 13 seconds to decide before auto-reverting back to the main screen.

(11) CTCSS CODE FUNCTION

This function can help you select your group (38 CTCSS codes) of users on the shared frequency. Only the users with the same CTCSS code can listen and talk to each other. Using this function will improve the **privacy** of your communication. In radio communication, any PMR 446 radio can listen to all communications on the same channel when using the default standard setting with CTCSS = 00 (OFF).

To select a CTCSS code

- Press the **MENU** key twice, the CTCSS code display will flash.
- Press **+** or **-** key to select your required CTCSS code (01 - 38, 00 is off).
- Press the **PTT** key to confirm or press **MENU** to continue.
- You have 13 seconds to decide before auto-reverting back to the main screen.

(12) VOX "HANDS FREE FUNCTION"

The **Zartek PT8** has a built-in multi-level sensitivity VOX function. You can enjoy talking and listening without pressing PTT key as transmit is automatically activated by sound. Setting 3 is the most sensitive to noise.

- To turn on VOX function press **MENU** key 3 times, the LCD displays the **VOX** icon and the VOX sensitivity digit display will flash.
- Press **+** or **-** key to select **OF**, 1, 2 or 3(OFF, low, medium & high sensitivity).

- After turning on VOX the LCD will display **VOX** icon. Press **PTT** to confirm and quit or press **MENU** key once to confirm and continue to the next menu feature.
- The VOX feature works best when speaking directly into (or close to) the microphone on the radio.

(13) SENDING CALL-TONES

You can use 1 of 10 different “Call Tones” to get attention of other users on the same channel.

- Press the **⏸** key and the tone will sound, LCD will display the transmit icon  and your call tone will be sent.

(14) SELECTING A CALL-TONE (10 AVAILABLE)

- Press the **MENU** key 4 times, LCD will display  icon and a call tone number will flash.
- Press **+** or **-** key to select your desired call tone.
- Press the PTT key to confirm and quit or press **MENU** to continue next function setting.

(15) AUTO POWER OFF (APO)

- Press the **MENU** key 5 times the LCD displays the **APO** icon.
- Press **+** or **-** key to select auto power off time from 0 to 4 hours.
- Press **PTT** to confirm and quit or press **MENU** key once to confirm and continue to the next menu feature.
- After turning on this function the LCD will display the **APO** icon and automatically turn off at designated time.

(16) KEY TONE ON/OFF

- Press the **MENU** key 6 times, LCD display  (= Key tone On) or  (= Key tone Off)
- Press **+** or **-** key to toggle Key Tone On or Off
- LCD display icon  will be on when Key Tone is On. The  icon will be off when Key Tone is Off
- Press PTT to confirm and quit or press **MENU** to continue next function setting.

(17) ROGER BEEP (ON/OFF)

The Roger beep notifies the receiving radio that the conversation

