Legal Information

ZTE Trunking

ZTE PH500 U(1)

QUICK REFERENCE GUIDE

DIGITAL PORTABLE RADIO

Getting Started

Please read the following carefully:

How to use this manual…

What can you get from your agent or system administrator…

How to use this manual?

Please refer to each chapter for the details.

What can you get from your agent or system administrator?

You may ask your agent or system administrator about the following issues:

• Does your Handheld Transceiver (HT) have default channels?

• Which buttons can be used to access other functions?

• Which optional accessories do you need?

This manual describes basic operations on an HT. Your agent or system administrator may have customized your HT to address your special needs. For details, contact your agent or system administrator.

Ready to Use the HT

Perform the following steps to assemble your HT:

Charge the battery.

Install the battery.

Install the antenna.

Install the belt clip.

Install the universal interface cover.

Turn on the HT.

Adjust the volume.

Charge the Battery

The HT is powered by a Li-Ion battery. To protect the battery from damage and comply with the warranty conditions, you can use only the charger provided with the battery for charging. To maximize battery performance, it is recommended to charge the battery for 14 to 16 hours before the first use.

Install the Battery

Align the battery with the battery slot on the rear side of the HT. Push the battery into the slot until it is fastened. Before removing the battery, turn off the HT first. Press the battery fastener, and then remove the battery.

Install the Antenna

Turn off the HT, place the antenna into the installation hole, and turn the antenna clockwise. To remove the antenna, turn the antenna anticlockwise. Before removing the antenna, ensure that you have turned off the HT and removed the universal interface cover.

To replace the antenna, use a specified antenna to replace the old one. Otherwise, your HT may be damaged.

Install the Belt Clip

Align the screw holes on the belt clip with those on the rear side of the HT, and fasten the belt clip with screws.

Install the Universal Interface Cover

The universal interface is on the antenna side of the HT. It connects an accessory to your HT. Insert the universal interface cover fastener into the universal interface slot. Press the cover, so that it is fastened to the RF interface. Tighten the screw clockwise to fix the interface cover to the HT.

To remove the interface cover, press the cover, and loosen the screw anticlockwise. Lift up the cover, and slide it down.

Turn On the HT

Turn the volume/power knob clockwise until you hear a click sound. The HT gives a short beep sound, indicating that the HT is successfully turned on.

Note:

If you disable the tone/prompt function, no beep sound can be heard (for details, refer to the Enable or Disable the Tone/Prompt Function section). If your HT cannot be turned on, check the battery. Verify that the battery is charged and properly installed. If your HT still cannot be turned on, contact your agent. To turn off the HT, turn the knob anticlockwise until you hear a click sound.

Adjust the Volume

Turn the volume knob clockwise to turn up the volume. To turn down the volume, turn the knob anticlockwise.

HT Control

Please read the following carefully:

• HT control options

• Programmable buttons

• PTT button

HT Control Options

Emergency button*
LED indicator
Antenna
Channel selection knob
Power/volume button
Speaker
Side button 1*
PTT button
Side button 2*
Side button 3*
Microphone
Universal interface
Belt clip
Battery

Note:

The button marked with an asterisk means a programmable button.

Programmable Buttons

Your agent can set a programmable button to a shortcut button for a function or channel or call group in accordance with the duration for which the button is pressed:

• Press: means pressing a button and immediately releasing the button.

• Press and hold: means pressing a button and holding the button for a pre-programmed duration (between 1 second and 3.75 seconds).

Assignable HT Functions

• Emergency call: initiates or cancels an emergency alarm or call.

• Monitoring: monitors any activities in a selected analog channel.

• One-press call: initiates a predefined private call, group call, or short message by pressing one button.

• Encryption: enables or disables the encryption function for digital channels.

• Scanning: enables or disables scanning.

• VOX: enables or disables the VOX function.

• Zone: changes the current zone of the HT.

Assignable Setting Functions

• Tone/prompt: enables or disables the tone/prompt function.

• Power level: switches between transmitting power levels.

• Noise reduction: switches between large noise reduction and normal noise reduction.

PTT Button

Each channel can be configured as a digital channel.

• During a call, if you press the PTT button, the HT transmits signals to other HTs in the call. Press and hold the PTT button to talk. Release the PTT button to listen to other members in the call. When you press the PTT button, the microphone is activated.

• If there is no existing call, you can press the PTT button to initiate a call (for details, refer to the Initiate a Call section). If the call admission tone function is activated, wait until the short prompt tone ends.

• During a call, if the "idle channel prompt" function is enabled (preprogrammed by your agent), when the target HT (that receives your call) releases the PTT button, you will hear a short prompt tone, indicating that the channel becomes idle, and you can respond.

• If the existing call is interrupted (for example, when you receive an emergency call), you will hear an idle channel prompt tone. You can disable the "idle channel prompt" function by disabling the tone/prompt function (for details, refer to the Enable or Disable the Tone/Prompt Function section).

• To switch between digital channels, turn the knob.

Status Indicators

You can learn about HT operation through the following:

LED indicator...

Prompt tone...

LED Indicator

The LED indicator indicates operation of the HT.

• If the indicator is lit red, it indicates that the HT is transmitting signals.

• If the indicator is lit green, it indicates that the HT is being turned on, or receiving a call or data.

Prompt Tone

Prompt tones can help you learn about the HT status or response to data receiving.

• Continuous tone: The HT gives a series of single tones continuously.

• Periodic tone: The HT gives a tone periodically based on the specified cycle. The tone is automatically started, stopped, and repeated.

• Repeated tone: The HT gives repeated tones until you end it.

• Momentary tone: The HT gives a tone for a duration specified by the HT.

• High-pitch prompt tone

• Low-pitch prompt tone

• Positive prompt tone

• Negative prompt tone

Receive and Initiate a Call

You can use your HT after learning how to configure the HT.

Get familiar with the basic call function as follows:

Select a zone…

Select a channel, a user ID, or a call group ID…

Receive and respond to a call…

Initiate a call…

Select a Zone

A zone defines a channel group. The HT supports a maximum of two zones, and each zone supports a maximum of 16 channels.

Perform the following steps:

1. Press the pre-programmed zone button.

2. If you hear a positive prompt tone, it indicates that the HT switches from zone 1 to zone 2. If you hear a negative prompt tone, it indicates that the HT switches from zone 2 to zone 1.

Select a Channel, a User ID, or a Call Group ID

After selecting a zone (if there are multiple zones), you can turn the channel selection knob to select a channel, a user ID, or a call group ID.

Receive and Respond to a Call

After selecting a channel, a user ID, or a call group ID, you can receive or respond to a call.

When the HT is transmitting signals, the LED indicator is lit red. When the HT is receiving signals, the LED indicator is lit green.

Receive and Respond to a Group Call

To receive a call from a user group, you must configure the call group on the HT.

1. Verify that the LED indicator is lit green.

2. Hold the HT vertically, and keep it about 1 to 2 inches (2.5 to 5.0 cm) away from your mouth. If the "idle channel prompt" function is enabled, when the transmitting HT releases the PTT button, you will hear a short prompt sound, indicating that the channel becomes idle, and you can respond.

3. Press the PTT button to respond to the call. The LED indicator is lit red.

4. Wait until the call admission tone (if activated) ends, and speak to the microphone.

5. Release the PTT button to listen to other members in the call.

6. If no one talks within a specified period, the call ends.

Receive and Respond to a Private Call

A private call means a call that a single HT initiates to another HT. There are two types of private calls. In the first type, the calling HT performs an HT existence check before preparing for a call. In the second type, the HT directly prepares for a call.

When your HT is selected, the LED indicator is lit green. Only one type of private calls can be programmed on your HT.

When you receive a private call, perform the following steps:

1. Verify that the LED indicator is lit green.

2. Hold the HT vertically, and keep it about 1 to 2 inches (2.5 to 5.0 cm) away from your mouth. If the "idle channel prompt" function is enabled, when the transmitting HT releases the PTT button, you will hear a short prompt sound, indicating that the channel becomes idle, and you can respond.

3. Press the PTT button to respond to the call. The LED indicator is lit red.

4. Wait until the call admission tone (if activated) ends, and speak to the microphone.

5. Release the PTT button to listen to the other member in the call.

6. If no one talks within a specified period, the call ends.

Receive a General Call

A general call means a call that a single HT initiates to all the HTs on the same channel. A general call is used to issue an important announcement. When you receive a general call, perform the following step:

1. Verify that the HT gives a prompt tone, and the LED indicator is lit green.

2. If no one talks within a specified period, the call ends. If the "idle channel prompt" function is enabled, when the transmitting HT releases the PTT button, you will hear a short prompt sound, indicating that the channel becomes idle. You cannot respond to a general call.

Note:

When you receive a general call, if you switch to another channel, the HT stops receiving the general call. During a general call, you cannot use any programmable button until the call ends.

Initiate a Call

You can use either of the following buttons to select a channel, a user ID, or a call group ID:

• Channel selection knob

• Pre-programmed button for a one-press call

Initiate a Call With the Channel Selection Knob

Initiate a Group Call

To initiate a group call, you must join a call group on the HT. Perform the following steps:

1. Turn the channel selection knob, and use an activated call group ID for selecting a channel.

2. Hold the HT vertically, and keep it about 1 to 2 inches (2.5 to 5.0 cm) away from your mouth.

3. Press the PTT button to initiate a call. The LED indicator is lit red.

4. Wait until the call admission tone (if activated) ends, and speak to the microphone.

5. Release the PTT button to listen. When a target HT in the call responds, the LED indicator is lit green.

6. If the "idle channel prompt" function is enabled, when a target HT releases the PTT button, you will hear a short prompt sound, indicating that the channel becomes idle, and you can respond. Press the PTT button to respond. If no one talks within a specified period, the call ends.

Initiate a Private Call

Perform the following steps:

1. Turn the channel selection knob, and use an activated user ID for selecting a channel.

2. Hold the HT vertically, and keep it about 1 to 2 inches (2.5 to 5.0 cm) away from your mouth.

3. Press the PTT button to initiate a call. The LED indicator is lit red.

4. Wait until the call admission tone (if activated) ends, and speak to the microphone.

5. Release the PTT button to listen. When the target HT responds, the LED indicator is lit green.

6. If the "idle channel prompt" function is enabled, when the target HT releases the PTT button, you will hear a short prompt sound, indicating that the channel becomes idle, and you can respond. Press the PTT button to respond. If no one talks within a specified period, the call ends.

Initiate a General Call

This function enables you to transmit signals to all the users on the same channel. You must enable this function on your HT before using this function. Perform the following steps:

1. Turn the channel selection knob, and use an activated general call group ID for selecting a channel.

2. Hold the HT vertically, and keep it about 1 to 2 inches (2.5 to 5.0 cm) away from your mouth.

3. Press the PTT button to initiate a call. The LED indicator is lit red.

4. Wait until the call admission tone (if activated) ends, and speak to the microphone. Other users receiving the general call cannot respond to the call.

Initiate a One-Press Group Call or Private Call

The one-press call function enables you to call a predefined group ID or user ID by pressing one button. This function can be assigned to a press operation or a press-and-hold operation on a programmable button. You can assign only one ID to one programmable button. There are multiple programmable buttons for the one-press call function. Perform the following steps:

1. Press a pre-programmed button to call a predefined group ID or user ID.

2. Hold the HT vertically, and keep it about 1 to 2 inches (2.5 to 5.0 cm) away from your mouth.

3. Press the PTT button to initiate a call. The LED indicator is lit red.

4. Wait until the call admission tone (if activated) ends, and speak to the microphone.

5. Release the PTT button to listen. When a target HT in the call responds, the LED indicator is lit green.

6. If the "idle channel prompt" function is enabled, when the target HT releases the PTT button, you will hear a short prompt sound, indicating that the channel becomes idle, and you can respond. Press the PTT button to respond. If no one talks within a specified period, the call ends. When a private call ends, you will hear a short prompt tone.

Advanced Functions

You can use the following advanced functions:

Scan list…

Scanning…

SMS…

Settings…

Scan List

You can create a scan list and assign it to a single channel or call group. The HT scans the channel or call group queue in the list on a cycle basis to check whether someone is speaking on the current channel. The HT supports a maximum of 250 scan lists, and each list supports a maximum of 31 members.

Scanning

When you start scanning, the HT scans the pre-programmed scan list on a cycle basis to check whether someone is speaking on the current channel.

The LED indicator is flashing red.

Scanning modes

• Main channel scanning (manually): The HT scans all the channels or call groups in your scan lists. Depending on the configuration, your HT may start scanning from the last scanned active channel/user group or the channel for which scanning is enabled.

• Automatic scanning (automatically): When you select a channel or call group for which automatic scanning is enabled, the HT automatically starts scanning.

Start and Stop Scanning

Perform the following steps:

1. Press the pre-programmed scan button. Or turn the channel selection knob to select a channel for which automatic scanning is enabled.

2. When scanning is started, the LED indicator is flashing red, and you will hear a positive prompt tone. When scanning is stopped, the LED indicator is not lit, and you will hear a negative prompt tone.

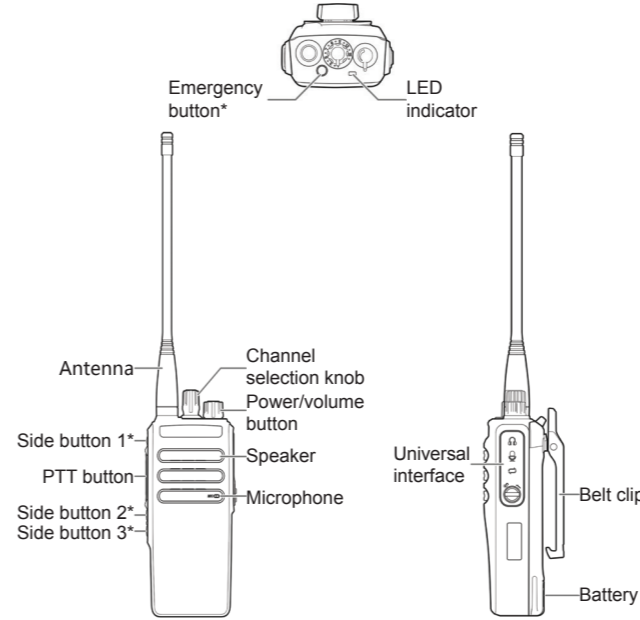**When the HT detects an active channel**

The HT stops at the detected active channel or call group.

The HT stays on this channel for a pre-programmed duration call "idle time".

Perform the following steps:

1. Hold the HT vertically, and keep it about 1 to 2 inches (2.5 to 5.0 cm) away from your mouth. If the "idle channel prompt" function is enabled, when the transmitting HT releases the PTT button, you will hear a short prompt sound, indicating that the channel becomes idle, and you can respond.

2. Press the PTT button within the idle time. The LED indicator is lit red.

3. Wait until the call admission tone (if activated) ends, and speak to the microphone.

4. Release the PTT button to listen.

5. If you do not respond within the idle time, the HT continues to scan other channels or call groups.

Send a Predefined Short Message

You can use a pre-programmed button to send a short message predefined by your agent. Perform the following steps:

1. Press a pre-programmed button to send a predefined short message to a predefined ID.

2. The LED indicator is lit red.

3. If the HT gives two chirps, it indicates that the short message is successfully sent. If the HT gives a low-pitch prompt tone, it indicates that the short message fails to be sent.

Settings

Set the Noise Reduction Level

You can adjust the noise reduction level to block useless calls with low signal strength or channels whose background noise levels are higher than normal.

The default level is set to normal. With large noise reduction, the HT blocks useless calls and background noise. Calls from remote locations may also be blocked.

Perform the following steps:

1. Press the pre-programmed noise reduction button.

2. If you hear a positive prompt tone, it indicates that large noise reduction is applied. If you hear a negative prompt tone, it indicates that normal noise reduction is applied.

Set the Power Level

You can set the power level for each channel.

If a high power level is set, the HT can communicate with HTs at a far distance. If a low power level is set, the HT can communicate only with HTs at a close distance.

Perform the following steps:

1. Press the pre-programmed power level button.

2. If you hear a positive prompt tone, it indicates that the HT operates at a low power level. If you hear a negative prompt tone, it indicates that the HT operates at a high power level.

Enable or Disable the VOX Function

This function enables you to initiate a hands-free call. The HT automatically transmits signals within the specified period, regardless of when the microphone with the VOX function detects voice.

During a call, if you press the PTT button, the VOX function is disabled. To re-enable the VOX function, use one of the following ways:

Note:

The following operations are limited to the HTs on which the VOX function is activated. For details, contact your agent or system administrator.

• Turn off the HT, and then turn on the HT again.

• Change the channel.

• Press the pre-programmed VOX button.

If the call admission tone function is activated, you can use a trigger word to initiate a call. Wait until the call admission tone (if activated) ends, and speak to the microphone.

Enable or Disable the Tone/Prompt Function

You can enable or disable the tone/prompt function if required. The emergency call tone cannot be disabled.

Perform the following steps:

1. Press the pre-programmed prompt/tone function button.

2. If you hear a positive prompt tone, it indicates the tone/prompt function is enabled. If you hear a negative prompt tone, it indicates the function is disabled.

Check the Battery Level

You can check the battery level.

If the LED indicator is lit red, it indicates that the battery is being charged. If the LED indicator is lit green, it indicates that the battery is fully charged.

Perform the following step:

Press the pre-programmed battery level button to check the battery level through the LED indicator.

Accessories

Your HT is compatible with the following accessories (for details, contact your agent):

Antenna

Battery

Charger

Earphones

Remote speaker and microphone

Other accessories

FCC Caution:

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
This device complies with part 15 of the FCC Rules. Operation is subject to the following conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:
FCC Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment .
This equipment should be installed and operated with minimum distance 20cm between the radiator& your body.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
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.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates 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

Operation is subject to the following two conditions: 1. This device may not cause harmful interference, and 2. This device must accept any interference received, including interference that may cause undesired operation.

Note:î Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the userís authority to operate the equipment.î

Compliance with RF Exposure Standards

PH500 U(1) complies with the following RF energy exposure standards and guidelines:

- United States Federal Communications Commission, Code of Federal Regulations; 47 CFR §§1.1307, 1.1310 and 2.1093
- American National Standards Institute (ANSI) / Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992
- Institute of Electrical and Electronic Engineers (IEEE) C95.1-1999 Edition