TERA
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User Manual

TR-7200
TR-7400

DMR
DIGITAL MOBILE RADIO ASSOCIATION

TERA

Thank you for purchasing TERA model TR-7200/TR-7400. These models feature 1,024 channels, 64 zones. These radios models are built to DMR standards which insures operation worldwide.

To get the most out of your radio, please read this manual carefully before use.

Initial Programming

This commercial handheld radio ships from the manufacture “Displayed Locked” per FCC rules. You must first use the programming software to unlock this radio for the first time of use. You will need the programming cable to connect your radio to your computer for programming. Please contact your dealer for radio programming software.

When programming this radio for the first time , it is recommended you first READ the radio with the software and then save this file for future reference. In addition, after you READ this radio with software, first make your programming and frequency changes, then send this edited file back to your radio. Please contact the dealer you purchased this radio from or TERA should you have any questions.

TERA

On-line Service and Support

The TERA website provides additional information about obtaining service or support for the TERA line of digital portable radio and accessories.

visit: www.tera.co

User Manual

Safety Matters

The following recommendations will help you understand this radios safety requirements.

1. Only qualified TERA technicians are allowed to service this digital portable radio. Do not disassemble the radio by yourself as it will void the warranty.
2. Use only the TERA brand battery pack and desk charger, so as to not damage the transceiver.
3. Do not expose this radio to long periods of direct sunlight, or hot or humid areas.
4. Do not put this radio in dusty or dirty locations.
5. Do not use harsh chemicals, cleaning solvents, or strong detergent to wash this radio.
6. Never transmit on this radio without an antenna.

Caution

Safety and operability of this radio can’t be guaranteed unless TERA brand accessories or parts are used.

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Safety Matters

Please read rules below. Nonobservance of these rules may cause danger or violation of law.

- The use this radio must comply with regulations of local government.
- Turn off the radio before you enter places of flammable or explosive environment.
- Do not replace or charge battery pack in places of flammable or explosive environment.
- Turn off the radio before you approach blast area and detonator area.
- Do not use the damaged antenna which may cause lightly burn on skin.
- Only qualified technician are allowed to maintain this two-way radio. Do not disassemble the radio by yourself.
- To avoid problems caused by electromagnetic interference or electromagnetic compatibility, please turn off the radio in places with "Wireless Communication Transmit Equipment Prohibited" mark, such as hospitals or other health care places. When taking a plane, turn off the radio if required.
- In a car with air bag, do not place the radio within possibly involved area when air bag expands.
- Do not expose the radio to direct sunlight or near heating devices for a long time.
- Keep the radio vertical and speak near the microphone during transmitting.
- Make sure that the antenna is 2.5 cm away from the body during transmitting if you carry the radio on your body.

Product Inspection

Thanks for using TR-7200 / TR-7400 digital portable radio . Before use, we recommend that:
First check the package for any signs of damage;
Carefully open the package and identify the items listed below;
If any items are missing or damaged during shipment, please contact your dealer.

Items

Radio DH-9800
Qty:1

Antenna
Qty:1

Li-Ion Battery
Qty:1

Charger
Qty:1

Lanyard Strap
Qty:1

Belt Clip
Qty:1

User Manual
Qty:1

Adapter
Qty:1

Note: Frequency is marked on the color circle at the bottom of the antenna.

Get Acquainted

Battery Information

Applicable Battery Model:

lease charge with TERA approved battery; Using other batteries may burst and cause personal damage.

Note:

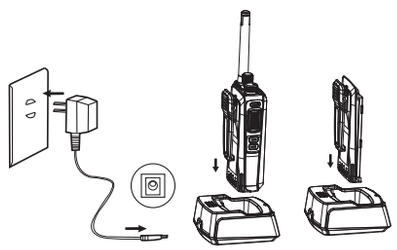
1. Do not short-circuit the battery terminals or dispose the battery in fire. Never attempt to disassemble the battery pack.
2. Charge the battery in 0-45℃ temperature. Otherwise the battery may not be fully charged.
3. Turn off the radio equipped with battery before charge. Use the radio while charging may interfere with charging.
4. Do not pull/plug the adapter and the battery during charging to avoid interfere with the charging procedure.
5. When the battery power consumes quickly even if it is fully and correctly charged, that means the battery life is over and please replace with new battery.
6. Do not charge if the battery or radio is wet. Before charge, you should dry it with cloth to avoid danger.

⚠ Warning:

Conductive metals such as jewelry, key or decorating lace may result in short circuit and generate a large quantity of heat when coming to contact with battery electrodes. Treat any battery carefully especially when placing it into pocket, wallet or other metal container.

Charge Operation

Please charge as follows:



1. Turn off the radio. Plug the DC connector of adapter into the DC jack on the rear of the charger.
2. Plug the AC connector of adapter into an AC outlet.
3. After the charger is electrified, the LED glows red for 1 second and goes out. That means the charger is ready for normal charging. If the LED flashes red, it means the charger is not ready for battery charging.
4. Insert the battery or radio equipped with battery into the charger. Make sure the battery is in good connection with the charger electrode.
5. LED glows red during charging and flashed during trickle charging because of very low battery power. And after the battery power reached a certain mount during trickle charge, the charger automatically turns to normal charge mode.
6. The battery is fully charged when LED glows green. The charger stops charging automatically.

Cautions in Charging

1. The battery is not charged in factory. Please charge the battery before initial use or after long-time storage.
2. Repeat charging 2 to 3 times will make the battery reach its best capacity. Please replace or charge the battery if battery power is low.
3. When the battery power consumes quickly even if it is fully and correctly charged, that means the battery life is over and please contact your dealer and buy new approved battery.

Antenna Information

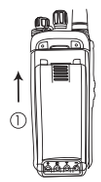
- Stubby antenna is suitable for short-distance communication; thin and long antenna will provide best communication effect. Also it is comfortable to carry on the waist.
- The communication range may be shortened in rainy days or in forest. Please make preparations for that .

Attaching and Removing

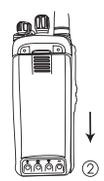
Attaching the Battery

Match the two grooves of battery with corresponding guides on the back of the radio. And make sure the full contact and parallel between the battery and aluminum chassis.

Then push the battery along the guide until the battery latch locks.



Push the battery latch towards the mark “Lock” to lock it.



Removing the Battery

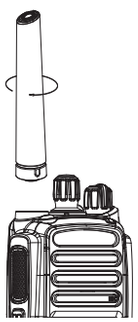
To remove the battery, first make sure the radio is turned off, then push the battery latch in the opposite direction of the mark “LOCK” to unlock it, and push the battery latch downwards.

Slide the battery away from the radio.

Attaching/Removing the Antenna

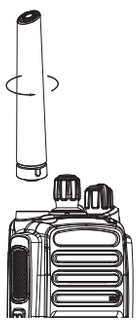
Attaching the antenna:

1. Insert the antenna into the connector on the top of radio by holding the antenna at its base.
2. Rotate the antenna clockwise to fasten it.



Removing the Antenna:

Rotate the antenna counter clockwise until you can remove it.



Installing/Removing the Belt Clip

Installing Belt Clip

Match the grooves of belt clip with those on the rear of radio and press the belt clip downwards until it is locked.

Removing Belt Clip

Use your nail or a tool to lift the metal spring piece in the belt clip from topside and pull the belt clip upward from the battery pack.

Note:

1. To use belt clip, please install the belt clip onto the battery before the installing of battery pack.
2. Remove the battery from the radio before the removing of belt clip.

(Figure 1)

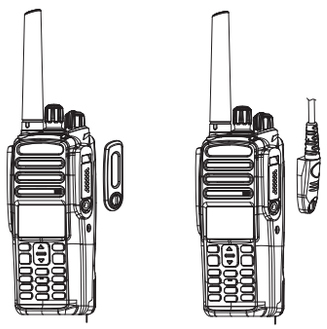
(Figure 2)

Installing Hand Strap

Thread the strap into the hole at the back of the radio and fasten it.

Attaching the Audio Accessory Programming Cable

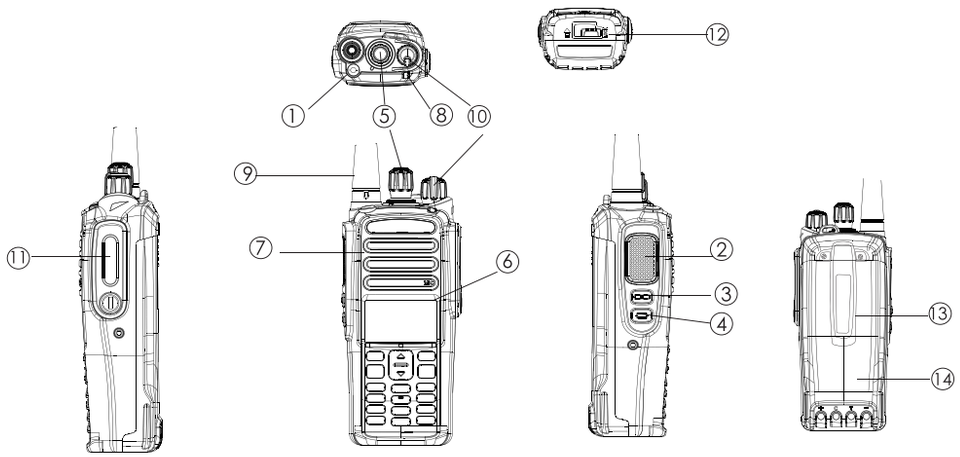
1. Remove the screw on the accessory jack cover, open the accessory jack cover as figure show below.
2. Align the plug with the accessory jack.
3. Tighten the screw on the plug.



Removing the Accessory

To remove accessories, loosen the screw as figure shown below.

Radio Overview



No.	Part Name	No.	Part Name	No.	Part Name	No.	Part Name
1	SK1（Side Key 1）	7	LCD Display	13	Radio On-Off/ Volume Control Knob	19	Down Key
2	PTT Key	8	OK/Menu Key	14	Accessory Jack	20	Battery Latch
3	SK2（Side Key 2）	9	Speaker	15	Back Key	21	Belt Clip
4	TK（Top Key）	10	Numeric Keypad	16	Right Key/ Home Screen Key	22	Battery
5	Channel Selector Knob	11	LED Indicator	17	Left Key		
	Microphone	12	Antenna	18	Up Key		

Status Indicators

LCD Icons

Icon Name	Icon	Radio Status
RSSI		No signal
		More bars indicate better signal strength
Message Icons		New Message/Unread Message
Scan Icons		Scanning is in progress
		Scanning pauses on a non-priority channel
	P_1	Scanning pauses on Priority Channel 1
	P_2	Scanning pauses on Priority Channel 2
Tx Power Icons	L	Low Tx power for the current channel
	H	High Tx power for the current channel
Battery Strength Icons		More bars indicate more battery power
Tone Icons		Radio Silent is on
		Radio Silent is off

LED Indicator

The top LED indicator will help you easily identify current radio status.

LED Indicator	Radio Status
LED ashes green.	Powering on
LED flashes red.	Transmitting
LED flashes green.	Receiving
LED ashes orange.	Scanning

Programmable Keys

For enhanced convenience, you may request your dealer to program the keys【SK1】、【SK2】、【TK】as shortcuts to the functions listed below:

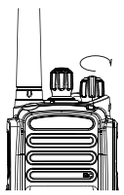
No.	Shortcut Keys	Description
1	Radio Disable	To disable the radio of a private contact quickly
2	Radio Enable	To enable the radio of a private contact quickly
3	Radio Check	To check the radio of a private contact quickly
4	Alert Call	To initiate an alert call
5	Adjust Power Level	To change the TX power between High and Low
6	Remote Monitor	To remotely monitor a contact through one button press
7	Emergency On	To initiate an emergency call.
8	Emergency Off	To stop the emergency call
9	VOX	To toggle the VOX function between on and off.
10	Message	Quick access to the menu “Message”
11	Contact	Quick access to Contact List
12	Zone Up	Quick access to a desired zone
13	Zone Down	
14	Zone Switch	
15	Keypad Lock	To lock or unlock the keypad quickly
16	Vibration	To enable or disable Vibration function through one button press
17	Man Down	To enable or disable Man Down function through one button press
18	Squelch Off	To always unmute speaker no matter whether carrier is present or not.
19	Battery Power Indicator	To show the battery power through one button press.

Note：1) Long and short press of a key can be assigned with different functions by your dealer.
2) The【TK】is programmed as the Emergency key by default, and is programmable by your dealer.

Basic Operations

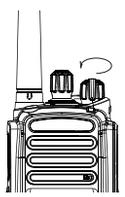
Turning the Radio On/Off

Rotate the【Radio On-Off/Volume Control】knobclockwise/ counter-clockwise until a click is heard to turn the radio on/off.



Adjusting the Volume

After turning the radio on, rotate the Radio On-Off/Volume Control knob clockwise to increase the volume, or counter-clockwise to decrease the volume.



Selecting a Zone

A zone is a group of channels exhibiting the same property, and is programmed by your dealer. The radio supports up to 16 zones, each with a maximum of 16channels. You may select a zone through any of the following methods.

1. Always Allow: the user can transmit all the time.
2. Through menu selection.
   Go to the menu “Zone”, and use the【Up】/【Down】keys to select your desired zone and use【OK】key to switch to the zone.
3. Through the function keys.
   You may quickly toggle to you desired zone by pressing the programmed【Zone Up】/【Zone Down】/【Zone Switch】key.

Note: This feature is available for digital channel only.

Selecting a Channel

Rotate the【Channel Selector】knob to select a desired channel.

Users can set the “Tx Admit” feature for each digital channel via programming software. This feature prevents users from transmitting on channels that are already in use.

1. Always Allow: the user can transmit all the time.
2. Channel Free: the radio can transmit only if the channel is free.
3. Color Code Free: the radio can transmit only when the channel is free or the color code is not matched.

Note: This feature is available for digital channel only.

Digital/Analog Switch

Each channel can be programmed as either analog channel or digital channel. If the current zone includes both analog and digital channels, you may quickly switch between digital and analog through the【Channel Selector】knob.

Locking/Unlocking the Keypad

When the keypad is not in use, you can lock the keypad to prevent accidental keypad operation. Three methods are available for you to lock or unlock the keypad:

1. Through key combination
   Use“【OK】+【*DEL】”to lock or unlock the keypad.

2. Through the function key
   Press the programmed Keypad Lock key to lock or unlock the keypad.

3. Through menu selection
   Go to Settings -> Basic Setting -> Keypad Lock, and then select On or Off.

Keypad Lock On:
The keypad will be locked automatically if no operation is made for the preset time period.

Keypad Lock Off:
The keypad will not be locked automatically. However, you can lock or unlock the keypad via the key combination or Keypad Lock key mention above .

Call

Transmitting a Private Call

You may transmit a Private Call through any of the following methods. When transmitting a Private Call, the icon “ ” will appear.

Transmitting a call to the preset contact

In standby mode, pressing PTT key will transmit an individual call to the contact (a Private Call number) preset for the current channel.

Note: Your dealer may preset a contact for each digital channel. The preset contact could be a Private Call number, a Group Call number or an All Call number.

Transmitting a call through Contact List or Call Logs

1) Go to Contact, or go to Call Logs ->Call List->Outgoing/Incoming/ Missed List
2) Use the Up/Down key to select the Private Call number you want to call.
3) Hold down PTT key to transmit a Private Call to the selected contact.

Transmitting a call through Manual Dial

1) Go to Manual Dial.
2) Input a Private Call number you want to call.
3) Press PTT key to transmit a call.

Note: If the keypad input function is enabled by the dealer via the programming software users can input a Private Call number though Numeric Keypad.

Transmitting a Group Call

You may transmit a Group Call through any of the following methods. When transmitting a Group Call, the icon" " will appear.

- Transmitting a call to the preset contact

In standby mode, pressing PTT key will transmit a group call to the contact (a Group Call number) preset for the current channel.

- Transmitting a call through Contact List or Call Logs
  1) Go to Contact .
  2) Use the Up/Down key to select the Group Call number you want to call.
  3) Hold down PTT key to transmit a Group Call to the selected contact.

Transmitting an All Call

Methods are the same as those in Transmitting a Group Call When transmitting an All Call, the icon" " will appear.

Note:
You can transmit an All Call only when it is enabled by your dealer.

Receiving and Responding to a Group Call

- Receiving an All Call

When an All Call is received, your radio will display the icon .

- Responding to a Group Call , after a Group Call is received, you may press the PTT key within the preset time period to call back. If you do not respond to a received Private Call, the radio will display the missed call icon" ".

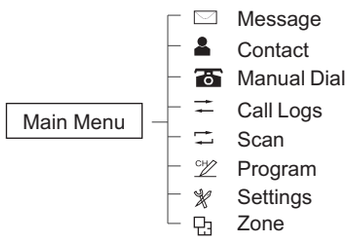
Note: You cannot respond to an All Call.

Make a Call on Analog Channels

To transmit on an analog channel, hold down the PTT and speak into the microphone. To receive, release the PTT.

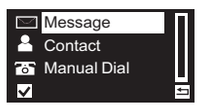
Note: To ensure an optimal volume for the receiving radio, hold the radio approximately 2.5 to 5 centimeters away from your mouth during transmission.

Menu Navigation



Message

To access this item, press the Menu key in idle mode and then select "Message", or press the shortcut key for Message directly.



- **Inbox**

To access this item, press the Menu key in idle mode and then select "Message", or press the shortcut key for Message directly.

For each message, you can choose to perform any of these operations: Reply/Forward/Edit/Delete. To delete all messages in the Inbox, select "Message→Delete→Inbox".

- **New Msg**

You can create your desired text messages (150 characters at most) and send it to an individual user or to a talk group.

- **Outbox**

The Outbox can save up to 15 sent messages. When the Outbox is full, the oldest entry will be overwritten by the latest one automatically. For each message, you can choose to perform any of these operations: Resend / Forward / Edit / Delete. To delete all messages in the Outbox, select "Message→Delete→Outbox".

- **Quick Text**

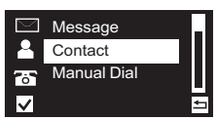
Under this option there are some text messages (15 entries at most) preset by your dealer. You can choose to edit and send any entry.

- **Drafts Box**

The Drafts Box can save up to 15 messages. Users can re-edit or send the message saved in the Drafts Box.

Contact

To access this item, press Menu key in idle mode and then select "Contact".



You can save up to 64 entries in the list. To access this. item, select "Contact" or press the shortcut key for Contact List.

- **Detail**

You can view details of each contact.

- **New Contact**

You can add a Private Call contact to the contact list. The number and alias of each contact must be unique, and the available number range is 1-16776415.

- **Editing a Contact**

You can edit the number and alias of each Private Call contact.

- **Deleting a Contact**

You can delete a Private Call contact. However, please note that you can not delete the contact when there is only one entry left in the list.

- **Sending Msg**

Users can send a message to a contact.

You can enable Radio Check/ Alert Call/ Remote Monitor/ Radio Disable/ Radio Enable of a Private Call contact.

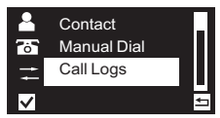
Manual Dial

To access this item, press the 【Menu】key and then select "Manual Dial".

You can manually input the Private Call number for calling.

Call Logs

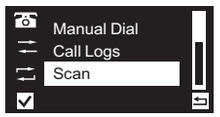
To access this item, press the Menu key in idle mode and then select "Call Logs".



This radio can save up to 20 entries in the Outgoing List, Incoming List and Missed List respectively (only for private call list). When the memory for call logs is full, the oldest entry will be overwritten by latest one automatically. After accessing a list and selecting an entry, you can perform any of these operations: hold down the PTT key to initiate a call, view, send a message or delete it. To delete all entries in Outgoing List, Incoming List and Missed List at a time, select "Call Logs→Delete→Outgoing /Incoming /Missed".

Scan

To access this item, press the 【Menu】key and then select "Scan".



- **Scan On/Off**

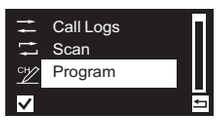
The function "Scan" allows you to listen to communication activities on other channels so that you can keep a close track of your team members. This option is used to enable or disable the function.

- **Scan List**

The function "Scan" allows you to listen to communication activities on other channels so that you can keep a close track of your team members. This option is used to enable or disable the function.

Program

To access this item, press the 【Menu】key and then select "Program".



- **Channel**

You can optimize your radio performance by customizing related parameters according to actual needs and your preferences.

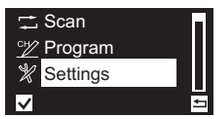
Frequency : to set the Rx frequency and Tx frequency of current channel Slot : to select the Tx slot
Color Code : to set the color code value for current digital channel (available range: 0-15)

- **Radio**

Radio ID : to view and change radio ID (this item is restricted by its available range "1~16776415" and the program software).

Settings

To access this item, press the 【Menu】key and then select "Settings". You can optimize your radio performance by customizing related parameters according to actual needs and your preferences.



- **Device Information**

With this option, you can view the basic information of. your radio, including radio ID, software version, firmware version, model number.

- **Parameter Setting**

TOT

With this option you can set the duration that the radio can

continuously transmit. The purpose of this feature is to prevent any user from occupying a channel for an extended period. If the preset time expires, the radio will automatically terminate transmission and keep beeping. To stop beeping, please release the PTT key. You must wait for a certain time period before you can press and hold down the PTT key to transmit again.
Note：This feature is null in Emergency mode.

Tx Power

This option allows you to set transmit power level. Alternatively, you can change the power level by pressing the shortcut key for Adjust Power Level.
There are two levels available: High (indicated by H) and Low (indicated by L). High power level enables you to communicate with further team members.

- VOX

This option allows users to configure the VOX function.
When enabled, this function allows users to speak into the radio directly without pressing PTT key.

- Vibration

This option allows users to enable vibration alert for messages, private calls, alert calls and so on.

- Tone

To set tones for your radio, you can set the following tones:

Radio Silent
To set whether the radio will give tone indication. If Silent on is selected, all alerts will be off.

Keypad Tone
To set whether the radio will give tone indication when there are keypad operations and to set the volume of the tone.

Low Battery Tone
To set whether the radio will give tone indication when the battery power is low and to set the volume of the tone.

Message Tone
To set whether the radio will give tone indication when receiving a message and to select a ring .

Private Call Tone
To set whether the radio will give tone indication when making a private call and to select a ring.

Group Call Tone
To set whether the radio will give tone indication when making a group call and to select a ring.

- **Basic Settings**

Language
To set the language in which all interface information s displayed. At the moment, this radio only supports two languages: Simplified Chinese and English.

Keypad Lock
To set whether to enable auto keypad lock.

Display Setting

Backlight：To set the backlight parameters. There are three options available: On, Off and Timer.
Backlight Time：The backlight will be off automatically upon expiration of the time set here. The available range is 5-15s.
Brightness：To set the display brightness. You can increase or lower it using 【Up】/【Down】key.

Keypad LED
To set whether to enable keypad LED. When "On" is selected and there is no keypad operation in 5s, the keypad LED will be off.

Zone

To access this item, press the【Menu】key and then select "Zone".
This radio supports up to 16 zones. You can use this menu to select your desired zone or you can use programmed Zone Up】/【Zone Down】/【Zone Switch】key to switch to your desired zone.

Functions and Operations

Scan

The feature "Scan" allows you to listen to communication activities on other channels so that you can keep a close track of your team members.

Operation:

1、To enable the feature, you can select "On"from the menu "Scan"; or switch to a channel for which the feature "Auto Scan"is enabled via the programming software.
2、After the feature is enabled, your radio will scan according to the scan list set for the channel on which scanning starts. The scanning process is as follows:

- During scanning, LCD displays icon , and LED flashes orange.
- When activities are detected on a channel, the radio will stay on the channel to receive current activities. If your radio stays on a non-priority channel, LCD will display icon ; If on Priority Channel 1 or Priority Channel 2, LCD will display icon or icon respectively.

To exit the scanning process, you can select "Off" from the menu "Scan".

Squelch Off

If the feature "Squelch Off" is enabled, your radio's speaker will keep unmuted no matter whether carrier is present.

Emergency

If the feature "Squelch Off" is enabled, your radio's speaker will keep unmuted no matter whether carrier is present.
1、Digital Emergency
In case of an emergency, you can use the feature to ask for help from your companion or control center.

The Emergency process has the highest priority.
You can make emergency operation even when your radio is transmitting or receiving.

To enable the feature on a channel, an emergency system must be assigned to the channel via the programming software.
In addition, the Emergency type and Emergency mode are settable via the programming software.

Emergency Type

There are five Emergency types available. You can select one of them via your dealer.

Emergency Type	Description
Siren Only	The radio will emit siren locally, but will not transmit any emergency signal to the control center.
Regular	The radio gives visible and audible indications during emergency state.
Silent	The radio gives no indication during emergency state.
Silent w/ Voice	The radio gives no indication during emergency state, but will unmute its speaker once it receives a call.
Alarm w/ Siren	The radio transmits the emergency signals to the control center first, and then gives siren locally with visible indication.

Emergency Mode

Your radio supports three Emergency modes. You can select one of them via your dealer.

Emergency Mode	Description
Alarm	The radio only sends emergency alarm request upon emergency activation.
Alarm w/ Call	The radio sends emergency alarm request before the emergency call upon emergency activation.
Call Only	The radio only transmit Emergency call upon emergency activation

2、Man Down

To set this feature via programming software. Once this feature is activated, the radio will enter Man Down status automatically when it tilts to the preset gradient. Or you can press the shortcut key to enable or disable this function.

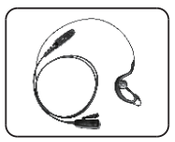
3、Lone Worker

This feature triggers off the Emergency mode if the user fails to have any Lone Worker response operation on the radio for a certain time period. This feature is designed for persons who work alone.
If the user cannot operate the radio within the preset time due to emergency, the radio will make an emergency alarm automatically to inform user's colleagues or the control center for help.

Optional Accessories

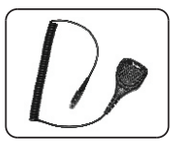
Optional accessories are available according to your requirements. All accessories with good quality will ensure you clear communication and outstanding performance.

Optional UHF Antenna


G-Hook Lapel Mic

Covert Clear Acoustic Tube Earphone MIc

USB Programming Cable


Heavy Duty Speaker Mic

Care and Maintenance

Question and Answer

Phenomena	Analysis	Solution
The equipment can not be powered on.	The battery may be improperly installed.	Remove the battery and attach it again.
	The battery may run out.	Recharge or replace the battery.
	The battery may suffer from poor contact caused by dirtied or damaged battery contacts.	Clean the battery contacts. If the problem can not be solved, contact your dealer or authorized service center for inspection and repair.
During receiving signals, the voice is weak, discontinuous or totally inactive.	The battery strength may be too low.	Recharge or replace the battery.
	The volume may be set to a low level.	Increase the volume.
	The antenna may get loose or may be improperly installed.	Power off the radio, and re-install the antenna.
	The speaker may be blocked or damaged.	Clean surface of the speaker. If the problem can not be solved, contact your dealer or authorized service center for inspection and repair.
You can not communicate with other members.	The frequency or signaling may be inconsistent with that of other members.	Set your TX/RX frequency and signaling to the same as that of other members.
	The channel type (digital/analog) may be set inconsistently.	Make sure all members are on the same digital/ analog channel.
	You may be too far away from the group members.	Move towards other members.
Irrelevant communications or noises are heard on the channel.	You may be interrupted by radios using the same frequency.	Change the frequency, or adjust the squelch level.
	The radio may not be set with any signaling.	Set signaling for all member radios to avoid interference at the same frequency.

Service and Support

TERA Radio provides warranty and non-warranty support for this radio and accessories.

Warranty and Repair Services

1. TERA two-way radio body has an industry leading 2-year warranty. Radio accessories(battery, charge adapter, charger and antenna, speaker mics) include a 6 month warranty from date of purchase.
2. The radio warranty of 2-years is in effect from the original purchase date on the sales receipt or invoice.
3. Repair or Replacement is available provided the original purchaser's sales receipt copy is included when the radio or accessories are sent in for repairs.
4. Replacement and repair or radios and accessories is provided at the discretion of TERA radio.
5. All repaired parts have its own warranty of 90-days from the repair date or the original radio warranty depending on the longer one is valid.
6. The warranty is only valid using this radio for normal use. And guaranty is unavailable under such conditions: dissembling or modifications damages caused by outside force and usage of unapproved accessories or antenna, not according to the user manual and so on.
7. Warranty is void if the TERA label or Serial Number label is missing or torn off.

Cautions

1. Read the user manual before use.
2. Do not use the radio with damaged antenna. Use the radio only with standard antenna.
3. Turn off the radio in potential dangerous environment.
4. Avoid the contact between the battery and the metal oily or corrosive objects.
5. Do not dip the radio or battery into water or throw them in fire.
6. Use the radio only with standard battery, adapter charger and earphone.

Terms of Warranty

1. TERA two-way radio body has an 2-year guarantee; accessories (battery, charge adapter, charger and antenna), earphone 6 months.
2. Only the original purchasing sales receipt or valid dealer's invoice (The invoice will give clear indication of items purchased and the radio serial-number, and purchasing date).
3. Replacement and repair is available subject to the presentation of original purchasing invoice in case that the radio cannot work normally as the instruction says within 30 days from the purchase date. (Note that there must not be visible abrasion on radio body and accessories.
4. Repair of accessories (battery, adapter, charger and antenna) is available to the presentation of original purchasing invoice.
5. The cost of materials and labor for repair are covered in warranty.
6. Warranty is void in case that the TERA mark or the serial-number mark is torn off.
7. Warranty is void in cases below:
   1) Beyond the warranty period;
   2) Defects or damages under abnormal use;
   3) Defects or damages because of mis-operation, accident and carelessness;
   4) Defects or damages because of incorrect testing, operation, repair, installation, reconfiguration or adjustment;
   5) Defects or damages to antenna because of non-material or non-processing problems;
   6) Defects or damages because of unauthorized repair and disassembling;
   7) Product that the serial-number marks is torn off or unable to identify;
   8) Product with unclear purchasing date on original sales receipt.
   9) Battery under such conditions:
      a. Any damages or unsealing to the battery pack;
      b. Defects or damages to battery because of charging with improper equipment or use beyond regulated maintain condition;
   10) Abrasion under normal use.

Warning Noes

Every effort has been made to ensure that the information in this document is complete, accurate, and up to-date. TERA Radio assumes no responsibility for the results of errors beyond its control. The manufacturer of this equipment also cannot guarantee that changes in the equipment made by non-authorized users will not affect the information in it.

FCC Licensing Information

This TERA radio operates on Commercial / Land Mobile frequencies which require a license from the Federal Communications Commission (FCC) for business, personal, education and recreational use. To obtain forms, call the FCC forms hotline at: 1-800-418-3676 or go to http://www.fcc.gov.
For questions concerning commercial licensing, contact the FCC at 1-888-CALL-FCC(1-888-225-5322).

Safety

The TERA handheld transceiver has been carefully designed to provide you with years of safe, reliable operation. As with all electrical equipment, however, there are a few basic precautions you should take to avoid hurting yourself or damaging the radio:

- Read the instructions in this handbook carefully. Be sure to save it for future reference.
- Read and follow all warning and instruction labels on the radio and owner's manual.
- Do not carry the transceiver by the antenna. This may damage the antenna or antenna terminal. Grasp the handheld by its base (not the antenna) when you need to place or remove it.
- Do not keep the radio with the antenna very close to, or touching exposed parts of the body, while transmitting. TERA radios will perform best, if you speak 2-4 inches away from the microphone and the radio is vertical.
- Be sure the "PTT" key is not pressed when you do not need to transmit.
- Do not operate the radio near unshielded electrical blasting caps or in an explosive atmosphere.
- Do not transmit without the antenna fitted on the radio. Though it is provided with a protection, it may damage the TX output final stage.

- Respect the environment conditions. The radio is designed to be used in heavy environments, however avoid exposing it to extremely hot or cold temperature (out of the range between –20 to +140°F). Do not expose the transceiver to excessive vibrations as well as dusty or rainy locations.
- Never try to disassemble or service the radio by yourself (aside from the routine maintenance described in this handbook). It may cause damage to the radio transceiver and void your warranty requiring extensive repair work. Always contact your local dealer for assistance.
- Use only authorized accessories. Using non TERA radio brand accessories may seriously damage your handheld transceiver and void your warranty.
- Do Not spill liquid of any kind into your radio. If the transceiver gets wet, immediately dry it by a soft and clean cloth.
- Switch the radio off before you clean it. Follow the directions described in the paragraph "Care and maintenance".
- Handle the battery properly. Never place the LI-ion battery in your pocket or purse with loose coins. This could result in short circuiting the battery.
- Be certain that your power source matches the rating listed for the supplied battery charger (AC adapter). If you are not sure, check with your authorized TERA dealer
- Avoid damaging the power cable of the battery charger. Do not step on or place anything on it as this could result in a damaged charger power cord. This product complies with the requirements of the Council Directives 89/336/EEC and 73/23/EEC on the approximation of the laws of the member states relating to electromagnetic compatibility and low voltage..

RF Radiation Information

This product must be restricted to operations in an Occupational/Controlled RF exposure Environments.

Users must be fully aware of the hazards of the exposure and able to exercise control over their RF exposure to qualify for the higher exposure limits.

RF Exposure Statement

Your *Powerwerx*,Inc. 2-wayradio is designed and tested to comply with a number of national and international standards and guidelines (listed below) for human exposure to radio frequency electromagnetic energy. This radio complies with the IEEE and ICNIRP exposure limits for occupational/controlled RF exposure environment at operating duty factors of up to __50__% transmitting and is authorized by the FCC for occupational use only. In terms of measuring RF energy for compliance with the FCC exposure guidelines, your radio radiates measurable RF energy only while it is transmitting (during talking), not when it is receiving (listening) or in standby mode. Note: The approved batteries supplied with this radio are rated for a 5-5-90 duty factor (5% talk-5% listen - 90% standby), even though this radio complies with the FCC occupational RF exposure limits and may operate at duty factors of up to __50__% talk.

Your *Powerwerx*,Inc. 2-way radio 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, 2.1091 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

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 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.