

FOREWORD

Thank you for purchasing our professional DMR digital two way radio. This easy to use radio will always offer you reliable, clear and security communication services.

Please read this manual carefully before using this radio, the information presented herein will help you to find the maximum performance, operating method and maintenance of your radio.

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Safety Information

Please read the following safety information in order to offer you security and high efficiency during operation.

- ✚ Please turn off the radio before entering and inflammable and explosive area.
- ✚ Do not replace the battery or charging when you are in an inflammable and explosive area.
- ✚ Please turn off the radio when you are close to the blast area or detonator zone.
- ✚ Do not use any radio which has a damaged antenna. It may cause a minor burn when the damaged antenna touches your shins.
- ✚ Do not attempt to dismantle the radio unless professional technical person.
- ✚ To avoid the problems which caused by EMI and EMC, turn off your radios in any places where posted notices "Please turn off your radios". For example, the hospital or other health care places.
- ✚ Turn off your radio before boarding an aircraft. Any use of the radio must be in accordance with airline regulations or flight crew's instructions.
- ✚ If the vehicles have carried with an air bag, do not put your radios within the air bag expand coverage.
- ✚ Do not try to dismantle the machine, and maintained by non-professional people who may do harm to the machine.
- ✚ Do not expose the machine to direct sunshine or lay the machine on over-hot place. High temperature will reduce life span of the electronic components and cause distortion of plastic.
- ✚ Do not lay the transceiver at dusty or dirty place.
- ✚ Please keep the transceiver dry. Raindrop or moist air will erode the circuit.
- ✚ When the portable radio is transmitting, please hold the radio in a vertical position and speak to the microphone.
- ✚ If you carry a radio on your body, please keep the antenna away from your body 2.5cm at least when the radio is transmitting.

DMR DM-R88 Main Functions and Features

- H/L power Selection
- Chinese and English Dial Speech
- Monitor
- 32channels
- Save Battery / Low Battery Alarm
- 9 levels Squelch
- VOX / Sensitivity / Delay Settings
- Width/Narrow band / Frequency Steps Selection
- Alone Work Function
- Channels / Priority Scan
- Squelch Tail Elimination
- Emergency Call
- Programmable Side Key
- TOT
- Privacy function
- Talk around
- SMS(Message) function

Unpack and Check Products

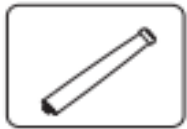
Thank you for purchasing our DMR professional radio. Before using, we recommend you as below:

Please check the package. Carefully unpack the transceiver to identify the items listed in the table below. If any items are missing or have been damaged during shipment, please contact the suppliers immediately.

Accessories:

Items	Quantity
Transceiver	1
Antenna	1
Battery Pack	1
Charger	1
Adapter	1
Belt Clip	1
Screws for Belt Clip	2
Hand Strap	1
User's Manual	1

Main Accessories Images



Antenna



Battery Pack



Charger&Adaptor



Belt Clip



Hand strap



User's Manual

Charger Information

Only use the charger which specified by supplier. The charger's LED indicator would show you the charging status.

Please follow these steps to charge the battery:

1. Before charging, please plug the adaptor's cable into the charger's input jack.
2. Connect the adaptor with the AC Power socket. You will see a red light flash then go out.
3. Insert the radio or battery into the cradle of the charger. The LED glows red light and start to charge.
4. When the red LED glows green, the battery is fully charged.
5. Please cut the power and take out the radio or battery.

Note:

1. Make sure the radio is switched off during charging.
2. Overcharging may affect the battery performance.



Battery Information

Initial Use

New batteries are not charged fully in the factory. Please charge it before using. In general, the battery should charge 4 hours at initial use. The maximum battery capacity and performance is achieved after three times fully battery charge-discharge cycle. When the battery power runs out, please recharge the battery or replace one.

Applicable Battery Pack

Please only use the battery which specified by the manufacturer. Unauthorized batteries may cause the failure of Ex-protection or bodily injury and property damages.

Safety Information

1. Do not throw the battery into fire!
2. Do not abandon the battery as the household garbage, it should be recycled and disposed correctly.
3. Never attempt to disassemble the battery pack.

Notices:

- ◆ When charging your battery, please keep the ambient temperature among 5°C - 40°C.
- ◆ Please turn off the radio when the battery is charging. Using the radio during charging will affect the battery pack to be charged normally.
- ◆ During charging, do not plug in/pull out the power supply or the battery frequently, it would affect battery charging.
- ◆ Do not charge when the battery or radio is wet. Please dry it with a soft cloth before charging.
- ◆ The battery life is over when the operating time is obviously shorter than normal even if it's fully and correctly charged. Please replace a new battery.

To Prolong Battery Life

- ◆ Battery performance will degrade when the current temperature is below 0°C. A spare battery is necessary in cold weather. Please keep the cold batteries, these batteries may work under room temperature.
- ◆ If the battery contact is dusty, it may influence its normal use or normal charge.

Battery Storage

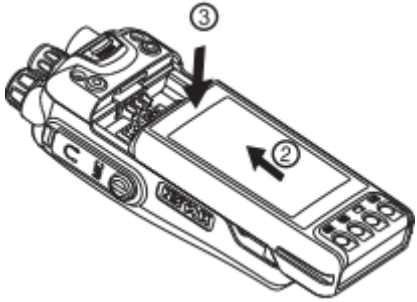
- ◆ Fully charge a battery before you store it for a long time, to avoid battery damage caused by over-discharge.
- ◆ Recharge the battery after several months' storage (Li-Ion/Li-polymer battery: 6 months, NiMH battery: 3 months), to avoid battery capacity reducing caused by over-discharge.
- ◆ When storing your battery, keep it in a cool and dry place under room temperature.

Accessories Assembly and Disassembly

Install & Remove the Battery

Install the Battery

1. Align the battery pack with the grooves on the chassis of transceiver.
2. Handhold the transceiver, and press the battery pack via thumb and forefinger.
3. Slide the battery pack upward until it is slid into grooves with a 'click'.



Remove the Battery

1. Push the battery pack latch downward to unlock it.
2. When the battery pack is loosened from the groove of transceiver, take out the battery pack.



Installing/Removing the Antenna

Hold the bottom end of the antenna and clockwise screw it onto the mating connector on the transceiver until it is tight. And counter-clockwise screw it off the mating connector on the transceiver.



CAUTION:

Never hold the antenna, and sway the transceiver.

Installing/Removing the Belt Clip

Installing the Belt Clip

1. Line up the holes and insert 2pcs screws.
2. Use the correct fit of screwdriver to tighten clockwise.

Removing Belt Clip

Unscrew 2pcs screws from the holes.



Installing & Removing the Optional Speaker/ MIC/Programming Cable
Install the Optional Speaker / MIC / Programming Cable

1. According to arrowhead direction①to screw out the screws and take out the SP/MIC Cover②.
2. Insert the SP/MIC plugs ③ into the corresponding sockets. Refer to the image.

Remove the optional Speaker / MIC/Programming Cable

Take out the SP/MIC plugs.

Note: When using an external SP/MIC, will affect the transceiver's waterproof.

Overview

1. Antenna
2. LED Status Indicator
3. Speaker
4. Microphone
5. Channel Selector Knob, from channel 1 to channel 16. (Two groups zones for choice)
6. Power Supply Switch / Volume Adjustor
7. Side button PF1

8. PTT Key: Press to transmit, release to receive.
9. Side button PF 2
10. Side button PF 3
11. Microphone/Speaker earphone jack.
12. Battery Pack

Note: The side buttons (PF1 – PF3) can be programmed with software for functionalities listed below.

NO.	Feature	NO.	Feature
1	Unassigned function	10	One Touch Access 6
2	All Alert Tones	11	Scan On/Off
3	Hi/Low Power Selection	12	Tight/Normal Squelch
4	Monitor	13	Privacy On/Off
5	One Touch Access 1	14	VOX On/Off
6	One Touch Access 2	15	Zone toggle
7	One Touch Access 3	16	Battery Indicator
8	One Touch Access 4	17	Lone Work On/Off
9	One Touch Access 5		

Basic Functions Operation

Turn on/off Power Supply of Transceiver

Rotate Power Supply Switch / Volume adjustor clockwise to turn on the transceiver with a “Click” sound, and rotate it counter-clockwise to turn off the transceiver with a “Click” sound. Rotate it to adjust the volume.

Adjusting Volume

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While press and hold MONI key, rotate Power Supply Switch / Volume Adjuster to adjust volume of transceiver.

Note: The Monitor key will be set at Side button PF1 or PF2 via software programming.

Selecting Channels

Rotate the channels selector to select the channels you desired. When your transceiver receives the signals, the speaker will sound.

Please note this radios has two zones, there is 16channels in Zone1 and another 16channels in Zone2.

Note:

·When in VOX mode, you don't need to press PTT key and speak into the microphone.

·When the battery voltage is too low, the transmission will stop and the speaker utter Low Battery Alarm. (See Page---

Functions Instructions

Functions Instruction

LED indicator

The LED indicator indicates the transceiver working status.

Red – Indicates transceiver is transmitting now.

Green—Indicates transceiver is switching on or receiving unencrypted call or signal, or it is checking the aerial sports now.

Alert Tone

Alert Tone indicates the transceivers status, or indicates the transceivers receive the signal data response.

Continuous Tone: Alert Monotonous tone. Transceivers will alert continuously till stop.

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Periodic Tone: According to the set time of duration in the transceiver, it will alert the periodic tone. Tone is self start, stop and repeat.

Repeating Tone: The self-repeating tone, it will be stopped by users.

Momentary Tone: Only alert momentary one time, the time set by users via software.

Call (PTT) Key

The 32 channels in the transceiver all can be set as digital channel.

1. When in transmitting, press PTT key to transmit signal. Release PTT to receive. When you press PTT, it will active microphone.
2. When do not transmit PTT key use to initiate a new call. According to programming, if 'Talk Permit Tone' is active, wait till the tone is over.
3. When in the process of transmitting, if your transceiver is active "CH Free Indication Tone" function (this will be pre-programmed), then when your partner is releasing the PTT key, you will hear a short tone that suggest you this channel is free, and waiting for your answer.
4. If the transmitting is stopped (Like transceiver receive the emergency call), you will still listen the "CH Free Indication Tone". You can stop all the tones of transceiver to turn off the 'CH Free Indication Tone'.
5. You can turn the knob to transfer the digital channel.

Receiving and Transmitting

Select Zone

One zone is one group of channels. The transceiver can support two zones; there is 16channels in each zone.

1. Press pre-programmed zone button.
2. You will hear a positive tone, that indicates the transceiver already transfers from Zone1 to Zone2; or you will hear a negative tone, that indicates the transceiver already transfer from Zone2 to Zone1.

After programming the transceiver channel, Members ID, Zones ID, you can turn the channel knob to select channel, users ID or Zones ID.

Receiving and answering transceiver call

After programming the transceiver channel, Members ID, Zones ID, you

can transmit or receive.

Indicate red light while transmitting a signal.

Indicate green light while receiving a signal

Receiving and Answering group call

If want to receive the group call, the transceiver must set in this group. The steps following below

1. LED indicates green light.
2. When using your transceiver, hold the transceiver in a vertical position with the microphone 1 to 2 inches (2.5 to 5cm) away from the lips. If active the "CH Free Indication Tone", when the transmitting partner release the PTT key, you will hear a short indication tone, this tell you the channel is free now, and waiting for your answer.
3. Press PTT to answer. LED indicates red light.
4. When the tone of waiting answering is finished, users can talk to microphone clearly.
5. Release PTT key to receive
6. If there is not any signal transmitting activity in the pre-set time, the call will stop.

Receiving and Answering single call

Single Call is transmit in a single transceiver to another single transceiver; there are two types of single call.

The first type: check before call

The second type: directly call

When receiving signal, the LED indicates green. One transceiver can only set one type, the first type or the second type. The steps following below:

1. LED indicates green.
2. When using your transceiver, hold the transceiver in a vertical position with the microphone 1 to 2 inches (2.5 to 5cm) away from the lips. If active the "CH Free Indication Tone", when the transmitting partner release the PTT key, you will hear a short indication tone, this tell you the channel is free now, and waiting for your answer.
3. Press PTT to answer. LED indicates red light.

4. Transmit the 'Talk Permit Tone' (if active), then talk to microphone clearly.

5. Release PTT key to receive

6. If there is not any signal transmitting activity in the pre-set time, the call will stop.

7. You will hear a short tone.

Receive All Call

All Call is a single transceiver to call all the users in a same channel, it is used to issue important message.

When you receiving All Call, the steps following below:

1. Alert a tone, the LED indicates green.
2. If there is not any transmitting activity in the pre-set time, the All Call will stop. If active the "CH Free Indication Tone"

Then when the calling party release PTT, you will hear a short tone, that indicates the channel can use now. You cannot answer the All Call.

Note: When receiving the All Call, if you transfer to another channel, then your transceiver will stop receiving this All Call. During All Call, you can not use any pre-programmed keys, till the All Call is finished.

Start one type of Transmitting Call

You can use the following types to select a channel, users ID or group ID:

- Channel Knob
- Pre-programmed side button

Type one: Use Channel Knob

Start group call

If want to start group call, the transceiver must set in this group. The steps following below:

1. Turn the channel knob, use the activated ID to select channel.

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2. When using your transceiver, hold the transceiver in a vertical position with the microphone 1 to 2 inches (2.5 to 5cm) away from the lips.
3. Press PTT to transmit, the LED indicates red.
4. Transmit the 'Talk Permit Tone' (if active), then talk to microphone clearly.
5. Release PTT key to receive, when the target transceiver response, the LED indicates green.
6. If active the "CH Free Indication Tone", then when the target transceiver release PTT, you will hear a short tone, that indicates the channel can use now and wait for your answer. Press PTT to transmit, If there is not any signal transmitting activity in the pre-set time, the call will stop.

Start single call

The steps following below:

1. Turn the channel knob, use the activated ID to select channel.
2. When using your transceiver, hold the transceiver in a vertical position with the microphone 1 to 2 inches (2.5 to 5cm) away from the lips.
3. Press PTT to transmit, the LED indicates red.
4. Transmit the 'Talk Permit Tone' (if active), then talk to microphone clearly.
5. Release PTT key to receive, when the target transceiver response, the LED indicates green.
6. If active the "CH Free Indication Tone", then when the target transceiver release PTT, you will hear a short tone, that indicates the channel can use now and wait for your answer. Press PTT to transmit, If there is not any signal transmitting activity in the pre-set time, the call will stop.
7. You will hear a short tone.

Start All call

The function allows you to send signal to all users in same channel. This

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function must be pre-programmed. The steps following below:

1. Turn the channel knob, use the activated ID to select channel.
2. When using your transceiver, hold the transceiver in a vertical position with the microphone 1 to 2 inches (2.5 to 5cm) away from the lips.
3. Press PTT to transmit, the LED indicates red.
4. Transmit the 'Talk Permit Tone' (if active), then talk to microphone clearly.

Type two: Use Pre-programmed side buttons

You can transmit group call or single call with the pre-programed ID or channel by using Pre-programmed side buttons.

The function will be activated by short press or hold&press. You can set one ID or pre-programmed fixed contact person in one pre-programmed side button. The transceiver can have many pre-programmed side buttons.

The steps following below:

1. Press pre-programmed side button, to send group call or single call to pre-programmed ID or current contact person.
2. When using your transceiver, hold the transceiver in a vertical position with the microphone 1 to 2 inches (2.5 to 5cm) away from the lips.
3. Press PTT to transmit, the LED indicates red.
4. Transmit the 'Talk Permit Tone' (if active), then talk to microphone clearly.
5. Release PTT key to receive, when the target transceiver response, the LED indicates green.
6. If active the "CH Free Indication Tone", then when the target transceiver release PTT, you will hear a short tone, that indicates the channel can use now and wait for your answer. Press PTT to transmit, If there is not any signal transmitting activity in the pre-set time, the call will stop.

Regarding single call, when call is over, you will hear a short tone.

Setting Message

Send the pre-set message

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User can send the pre-set message by pre-programmed key. You can pre-set MAX. 50 message.

The steps following below:

1. Press the pre-programmed side button to send a message to a pre-set fixed partner.
2. The LED indicates Red.
3. Transceiver beep 'DIDI' tone that shows the message send out successfully. If transceiver beep 'DI', which shows the message do not send out.

Privacy Function

Privacy setting (Only valid in digital mode)

By program software, users can pre-set 16groups of privacy group, Encryption key(4Byte). The privacy setting can active or negative by pre-programmed side buttons.

Digital Emergency System

Emergency Type(Set by program software)

Press the emergency key to turn on/off the emergency alarm.

Forbid Alarm: When press the emergency key, your radio will not emit alarm sound to remind other users. But your radio can receive the emergency alarm from other users.

Local + Remote alarm: When press the emergency key, your radio will emit alarm sound and alarm code to receivers for a pre-programmed time,

Remote Alarm: When press the emergency key, your radio will not emit alarm sound, but will emit alarm code.

Remote alarm + code: When active the emergency and stay in emergency status, press PTT key to call and give out the sound.

Alone Work

Through the pre-programmed side button to turn ON/OFF Alone Work function. Once this function is activated, the transceiver will automatically send out emergency call which pre-set before, to some other transceiver or the control center within a specified time period. Before sending out the emergency call, the transceiver will utter "DUDU" sounds to alert you to

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press any key to stop the emergency call and re-start the timer.

The feature provides added security and safety for individuals who work alone from their team. When the transceiver utter warning tone, you should press any key to indicate that you are safe, otherwise the transceiver will send out emergency alert call automatically.

Scan (To active this function by pressing the pre-programmed side button)

Scan list

To set up a scan list and allot to single channel /group. Your transceiver will scan-round the channel/group in the scan list, to check whether there is any signal in current channel. Your transceiver support MAX.250 scan list, there is MAX.16 member in each scan list.

Scan

When you active the scan mode, your transceiver can scan-round the scan list to check whether there is any signal in current channel.

LED indicates yellow. There are two scan types:

●**Main channel scan (Manual operation):** Your transceiver can scan all the channels/groups in scan list. When active scan, according to different setting, your transceivers can start scan from the last scan activity channel/group or the started channel.

●**Auto Scan (Automatically):** When you select an already activated scanned channel/group, your transceiver will start scan from the already activated scanned channel/group.

Start and Stop Scan

1. Press the pre-programmed key, or use the channel knob to select a auto scan activated channel.
2. When active scan function, LED indicates yellow, you will hear a confirm beep tone. Or when the scan is stopped, LED indicator if off, you will hear a negative beep tone.

Priority Channel Scan

When set the priority channel, transceiver allows to active the priority channel scan. The priority channel scan function will scan the channel like:

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Priority Channel→Normal Channel→Priority Channel→Normal Channel.....

When in scan mode, radio switch to transmit:

You transceiver will stay at the signal activated channel/group. The transceiver stay at this channel, this status call as “standby time” pre-programmed time limit.

1. If active the “CH Free Indication Tone”, then when the target transceiver release PTT, you will hear a short tone, that indicates the channel can use now and wait for your answer. Press PTT to transmit, If there is not any signal transmitting activity in the pre-set time, the call will stop.
2. When in ‘standby time’, press PTT key, the LED indicates red.
3. Transmit the ‘Talk Permit Tone’ (if active), then talk to microphone clearly.
4. Release the PTT key to receive.
5. If you do not response in ‘standby time’, radios will turn to scan other channels/groups.

Setting

Squelch level setting, steps following below:

1. Press the pre-programmed side button, “Tight/Normal” Squelch key.
2. You will hear a positive tone, show your transceiver is in ‘Normal Squelch’ now, you will hear a negative tone, show your transceiver is in ‘Tight Squelch’ now.

Power Level Setting

Users can set the power for each channel as high power or low power.

1. Press the pre-programmed side button “High power/Low power”.
2. You will hear a positive tone, show your transceiver is in ‘Low power’ now, you will hear a negative tone, show your transceiver is in ‘High power’ now.

VOX Setting

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1. Press the pre-programmed side button “VOX ON/OFF”, turn off or turn on the vox function.
2. If active the ‘Talk Permit Tone’, you can short press the pre-programmed side button to call. Transmit the ready tone(if active), then talk to microphone clearly.
3. You will hear a positive tone, show your transceiver is in ‘Normal Squelch’ now, you will hear a negative tone, show your transceiver is in ‘Tight Squelch’ now.

Turn On/Off ‘Disable All Tone’

If need, you can turn on/off ‘Disable All Tone’(Except ‘Call Alert Tone’)

1. Press the pre-programmed side button ‘Disable All Tone’, turn off or turn on the tone.
2. If negative the ‘Disable All Tone’, which means all the tone has turn on, or you will hear a positive tone, show all the tone has turn off.

Check Battery Indicator

You can check the current battery capacity.

Setting: LED indicates yellow, which means the radio is charging now; LED indicates green, which means the radio is charged full.

Press the pre-programmed “Battery Indicator” to check battery, the radio will report the current battery,

Report “DIDIDI” means high battery capacity; report “DIDI” means middle battery capacity; report “DI” means low battery capacity.

SPECIFICATION

General	
Frequency Range	400-470MHz
Channel Capacity	32
Channel Spacing	Digital: 12.5kHz
Working Voltage	7.4V Rated

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Battery Capacity	1800mAh (Li-ion)
Frequency Stability	±1.5 ppm
Antenna Impedance	50Ω
Dimension (H*W*D)	129 x 61 x 33mm
Weight	About 285g (with battery, antenna, belt clip)
Transmitter	
Power Output	UHF High Power: 4.0W
	UHF Low Power: 0.5W
4FSK Digital Modulation	12.5kHz Data only: 7K6φFXD 12.5kHz Data & Voice: 7K6φFXW
Spurious Emission	-36dBm<1GHz -30dBm>1GHz
Modulation Limiting	±2.5kHz @ 12.5 kHz
Adjacent Channel Power	60dB @ 12.5 kHz
Audio Response	+1~-3dB
Audio Distortion	≤5%
Receiver	
Sensitivity (Analog)	0.2μV (12dB SINAD)
Sensitivity (Digital)	0.3μV /BER5%

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Selectivity TIA603 ETSI	60dB @ 12.5kHz
Intermodulation TIA603 ETSI	65dB @ 12.5 kHz
Spurious Response Rejection TIA603 ETSI	70dB @ 12.5kHz
SNR 信噪比	40dB @ 12.5 kHz
Conducted Spurious Emission 传导发射杂散	-57 dBm
Audio Power Output 音频功率输出	1W
Audio Distortion 音频失真	≤5%
Audio Response 音频响应	+1~-3dB
Environmental Specifications	
Operating Temperature Range	-30°C ~ +60°C
Storage Temperature Range	-40°C ~ +85°C

RF Radiation Information

RF Radiation Profile

Radio Frequency (RF) is a frequency of electromagnetic radiation in the range at which radio signals are transmitted. RF technology is widely used in communication, medicine, food processing and other fields. It may generate radiation during use.

RF Radiation Safety

In order to ensure user health, experts from relevant industries including science, engineering, medicine and health work with international organizations to develop standards for safe exposure to RF radiation. These standards consist of:

United States Federal Communications Commission, Code of Federal Regulations; 47CFR part 2 sub-part J;

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;

International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998;

FCC Regulations

Federal Communication Commission (FCC) requires that all radio communication products should meet the requirements set forth in the above standards before they can be marketed in the U.S, and the manufacturer shall post a RF label on the product to inform users of operational instructions, so as to enhance their occupational health against exposure to RF energy.

Operational Instructions and Training Guidelines

To ensure optimal performance and compliance with the occupational/controlled environment RF energy exposure limits in the above standards and guidelines, users should transmit no more than 50% of the time and always adhere to the following procedures:

- a. Your radio radiates measurable RF energy only while it is transmitting (during talking), not when it is receiving (listening) or in standby mode.
- b. Keep the radio at least 2.5 centimeters away from your body during transmission.

FCC Statement:

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.

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.

Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

IC Statement

This device complies with Industry Canada licence-exempt RSS standard(s).
Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

SAFETY TRAINING INFORMATION



Lisheng (Fujian) Communications Co., Ltd. radio generators RF electromagnetic energy during transmit mode. This radio is designed for and classified as “Occupational Use Only”, meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways to minimize such hazards. This radio is NOT intended for use by the “General Population” in an uncontrolled environment.

This radio has been tested and complies with the FCC RF exposure limits for “Occupational Use Only”. In addition, Lisheng (Fujian) Communications Co., Ltd. complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

- FCC OET Bulletin 65 Edition 97-01 Supplement C, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
- American National Standards Institute (C95.1-1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
- American National Standards Institute (C95.3-1992), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields– RF and Microwave.
- The following accessories are authorized for use with this product. Use of accessories other than those (listed in the specified may result in RF exposure levels exceed the FCC requirements for wireless RF exposure.



To ensure that your exposure to RF electromagnetic energy is within the FCC allowable limits for occupational use, always adhere to the following guidelines:

- ▮ **DO NOT** operate the radio without a proper antenna attached, as this may damaged the radio and may also cause you to exceed FCC RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or antenna specifically authorized by the manufacturer for use with this radio.
- ▮ **DO NOT** transmits for more than 50% of total radio use time (“50% duty cycle”). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded. The radio is transmitting when the “TX indicator” lights red. You can cause the radio to transmit by pressing the “PTT” switch.
- ▮ **ALWAYS** keep the antenna at least 2.5 cm (1 inch) away from the body when transmitting and only use the belt-clip which is listed in instructions when attaching the radio to your belt, etc., to ensure FCC RF exposure compliance requirements are not exceeded. To provide the recipients of your transmission the best sound quality, hold the antenna at least 5 cm (2 inches) from your mouth, and slightly off to one side.

The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to as-sure that this radio operates with the FCC RF exposure limits of this radio.

Electromagnetic Interference/Compatibility

During transmissions, Lisheng (Fujian) Communications Co., Ltd. generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

Occupational/Controlled Use

The radio transmitter is used in situations in which persons are exposed as consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.