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Safety and Overview

Product safety and RF Exposure for handheld two way radio .

	<p>Before using this two way radio ,please read the manual which contains important operating instructions for safe usage, RF Energy Awareness, control information and operational instructions for compliance with RF Energy Exposure limits in applicable national and international standards Also read the operational instructions for safe use.</p>
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Unpacking and Checking Equipment

Welcome to use **HYDAX** radios, before using we suggest you:

- Please check the packing box of this product and see if there are signs of damage.
- Please open the packing box carefully. We recommend that you identify the items listed in the following packing list. if you find that our product and its accessories in handling are lost or damaged during the shipment. Please immediately contact dealers.

Parts List

Item	Quantity
Radio	1
Rubber Antenna	1
Li-ion Battery Pack	1
Desktop Charger	1
Power Adapter	1
Belt Clip	1
User's Manual	1
Hand-Strap	1

Charging the Battery

1) Using the battery

The battery is not completely charged at the factory, please charge it before using.

To extend the battery life time, please power off the battery when you don't use two way radio, and save battery in a cool (temperature less than 25℃)and dry place.

2 Precautions of Charging Equipment

1. Do not expose the charger to rain or snow.

2. Do not operate the charger if it has received a sharp blow, or has been dropped or damaged in any way.
3. Do not disassemble the charger if it has received a sharp blow, or has been dropped or damaged in any way.
4. Never alter the AC cord or plug provided with the unit. If the plug will not fit the outlet, have the proper outlet installed by a qualified electrician. An improper condition can result in a risk of electric shock.
5. To reduce the risk of damage to the cord or plug, pull the plug rather than the cord when disconnecting the charger from the AC receptacle.
6. To reduce the risk of electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning.
7. Use of an attachment not recommended or sold by **HYDX** may result in a risk of fire, electric shock, or personal injury.
8. Make sure the cord is located so it will not be stepped on, tripped over, or subjected to damage or stress.
9. An extension cord should not be used unless absolutely necessary. Use of an improper extension cord could result in a risk of fire and/or electric shock. If an extension cord must be used, make sure that:
 - The pins on the plug of the extension cord are the same number, size, and shape as those on the plug of the charger.
 - The extension cord is properly wired and in good electrical condition.
 - The cord size is 18 AWG for lengths up to 100 feet, and 16 AWG for lengths up to 150feet.
10. Do not replace charger's power cord. If the power cord damages, you must stop using charger immediately.

3. Charging the Battery

Please use the battery charger designated by **HYDX** to charge battery. After purchase or extended storage (more than two months), the first time to charge battery cannot make battery reach its normal operating capacity. After repeating charge /discharge it two or three times, the operating capacity will increase to its normal capacity.

4. Please Charge the Radio According to Operation Steps as Follows:

1. Insert power adapter into power supply socket.
2. Insert output terminal of power adapter into DC jack behind the charging kit, now the charging orange indicator lights about 2 seconds then goes out.
3. Insert the battery or radio equipped with battery into the charging kit.
4. Confirm the battery and charging kit terminal contact reliably, when charging indicator light turns into red and charging starts.
5. After completion of charge (charging time about 5 hours), light turns to be green.

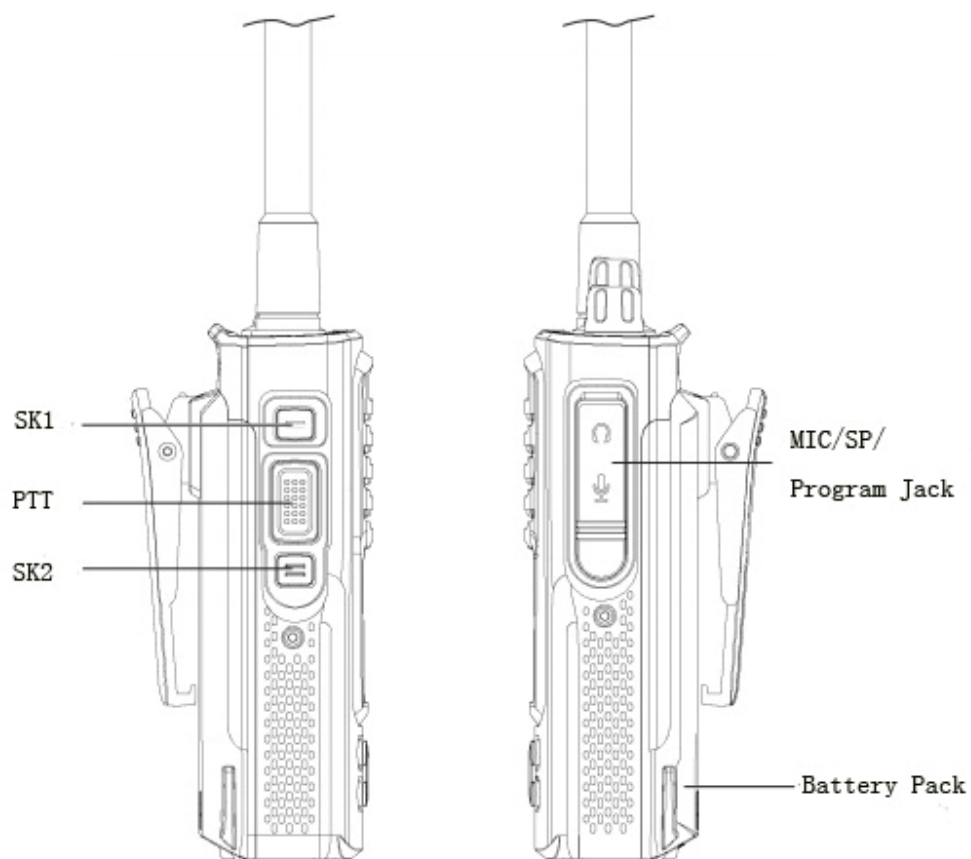
5. Indicators Display As Following:

Status	Indicator
Power Connected	Orange light is on about 2 seconds then goes out
No battery(temperature end judges)	All go out
Charge normally	Red light is on
The battery is fully charged	Green light is on
Fault (over temperature, battery short circuit or over discharge state)	Red light flashes

Note: Before charging, please turn off radio power equipped with battery. When charging, using radio will interfere with normal charge of battery and transceiver effect.

Getting Acquainted





Notice : Either Long-press or Short-press of Side-key 1/ Side-key 2/ Side-key 3 can be set by program software for the following functions :

Long /Short Press Programmable Functions	1.None-function
	2.All Warning Tone On/Off
	3.High/Low Power
	4.Monitor
	5.One –Touch Access 1
	6. One –Touch Access 2
	7. One –Touch Access 3
	8. One –Touch Access 4
	9. One –Touch Access 5
	10. One –Touch Access 6
	11.Repeater/Talk Around
	12.Scan on/off
	13.Tight/Normal SQL
	14.Encryption on/off
	15.VOX on/off
	16.Private Call By Manual
	17. Lone Worker

Basic Operation

Power On

Clockwise to turn on the radio volume knob , there will be a “KADA” sound , message sound and the screen will show up “Welcome”, while the LED indicator lights up and becomes Green color if the battery is full charged.

Notice: if all LED indicators are forbidden , the screen will not light up when switch on the walkie talkie, but with a message sound .

Notice: if the volume function is forbidden ,there will not any sound when power on . Here, need to power off the walkie talkie and anticlockwise with the knob until a “KADA”sound .

Volume Control






Clockwise the volume knob to higher the volume or anticlockwise to lower; And there shows a volume line on the screen .

Launch And Receive Call

1) Zone Selection

Zones is a channel group .Each radio can set at most 250 zones and each zone with 16 channels (Maximum).

Operation as below:

- 1.Press  to enter the menu.
2. Press  to choose, and  to confirm.
3. Screen shows the chosen zone and named .
4. Press  to chose, and  to confirm.
5. Screen shows the chosen zone .

2)Selection Of Channels , User ID Or Group ID

Select desired zone ,rotate channel knob to select the desired channel, user name or ID ,group name or ID

3)Receive And Reply Group Call

To receive group calling ,radio should be allocated under the group.

When receiving :

- 1.LED indicator lights green.
2. Show RSSI mark on the top screen: First line show the group name , income call ID are in the meddle ,group call ICON will be the last (only digital mode)
- 3.Hold the radio and place it between your lip within 2.5~3cm .Active the alert tone when channel free. You will hear the tone when release the PTT and waiting for your answer.
- 4.Press [PTT] to answer the call, LED indicator light change to red .
- 5.Release [PTT] to receive next call
- 6.If there are not any transmitter within the time limited , the call failed .

4)Receive And Reply The Single Call

Single call is one to one calling. Only two types : 1)Radio self detect before calling ;2) Ready to call.

When receiving :

- 1.LED indicator lights green.
2. Show RSSI mark on the top screen .First line show the single call ,user name or ID in the middle, single call mark at the end (Only analog mode) .
3. Hold the radio and place it between your lip within 2.5~3cm .Active the alert tone when channel free. You will hear the tone when release the PTT and waiting for your answer.
4. Press [PTT] to answer the call.LED indicator change to red .
5. Release [PTT] to receive .

5)Receive All Call

All call means communicate with all members on the same channel and to public important information

When receiving:

1. LED indicator lights green.
2. Show RSSI mark on the top screen .First line show the all call ,user name or ID in the middle, all call mark at the end (Only analog mode)
3. Back to previous interface after finishing all call .If under the “free channel message sound” function, when release the PTT key , you will hear alert tone which means channel is free but can not answer.

Notice: when receive the all call , if you turn over to another channel, the radio stop to receive all call.

During the all call, You can use any re-programmed key until the call finished .

6)Launch A Radio Call

You can choose a channel , user ID or group call with following methods

- Channel Knob
- Pre-programmed key
- Contacts
- Manual dialing (only for single call)

7) Using Channel Knob To Make A Call

Group Call

The radio should be under the group then can have the group call

1. Turn over channel knob , use group name or ID to choose channel
 2. Hold the radio and place it between your lip with 2.5~3cm.
 3. Press[PTT]key to call, LED indicator changes to red . Screen shows group name or ID with group mark .
 4. Release [PTT] key to receive , when target radio is replying , LED indicator becomes green .Screen shows group mark or name or ID .
 5. If on the “free channel message sound” function, release [PTT] key , you can hear a message sound , means it channel is free for you to answer.
- If there are not any transmitter within the time limited , the call failed .
6. when walkie talkie back to home screen ,you can make a group call with contacts.

Private Call

1. Turn over channel knob , use the name or user ID to choose channel.
2. Hold the radio and place it between your lip with 2.5~3cm.
3. On the top of the middle screen will show RSSI mark, follows shows single call , User name or ID in the middle, single call mark at the end (Only for analogue mode) .
4. Let go [PTT] key to receive , when target radio is replying , LED indicator becomes green
5. If on the “free channel message sound” function, let go [PTT] key , you can hear a message sound , means it channel is free for you to answer.

If there are not any transmitter within the time limited , the call failed .

6. you will receive a message sound and screen shows call finished .

You can make a single call with contacts or use keyboard to search the target walkie talkie to make a call.

All Call

Walkie talkie must be programmed with this function , so that you can send information to every user who are under the channel .

1. Turn over channel knob , use the name or user ID to choose channel.
2. Hold the radio and place it between your lip with 2.5~3cm.
3. Press [PTT] key to release a call , LED indicator becomes to red color .Screen shows Group name or ID with all call mark .

User under the channel can not reply the call .

8) Use A Key To Make A Group Call Or Single Call

Single key call function is convenient for you to set a name or ID for group call or single call with long-press or short-press the program key

Set a name or ID for a key

1. Press pre-programmed call key.
2. Hold the radio and place it between your lip with 2.5~3cm
3. Press [PTT] key to call , LED indicator becomes to red color .Screen shows name or ID with a mark .
4. Let go[PTT] key to receive, when target walkie talkie is replying ,LED indicator changes to green .
5. If on the“free channel message sound”function , let go [PTT] key ,you can hear a message sound , means it channel is free for you to answer .

If there are not any transmitter within the time limited , the call failed .

6. Walkie talkie back to before call screen.

Emergency Function

Emergency alarm only use to transfer emergency situations , you can release a emergency call at anytime and anywhere . Even the walkie talkie is busy in transferring or receiving

Radio support 3 types of emergency call :

- Emergency Call
- Call the emergency alarm
- A voice follow emergency alert

Moreover , alarm has the following types :


- Prohibit : radio can not send emergency call but can receive .
- Local + Remote: An emergency call with voice or notice .

- Remote : an emergency call without any voice or notice . Before press [PTT]key to call , local radios will not receive any voice or notice .
- Remote + Voice : radio sending an emergency call while accept to receive calls. Before press the [PTT] key to transmitter or reply , there are not any notice

Only part of above emergency situations can be set as pre-programmed key.


1) Receive Emergency Call

1. While receiving emergency calling ,number of emergency calls and alarms received ,exchange the sender name or ID .
2. With a message sound and LED indicator becomes red
3. If the radio have activated , then will confirm the emergency alarm automatically .When the radio receive the emergency alarm , screen shows the emergency alarm warning mark , until send with a confirm message then can logout . While , you will not receive any calls and notices from other radios during this situation .

Notice : short-press key, then with the pre-programmed off key, delete all received emergency call and logout the emergency mode .

2) Reply the Emergency Call

When received the emergency call:

1. Press any key to stop the emergency call alarm
2. Hold the radio and place it between your lip with 2.5~3cm . If on the“free channel message sound”function, let go [PTT] key , you can hear a message sound , means it channel is free for you to answer .
If there are not any transmitter within the limited time , the call failed .
3. Press [PTT]key to have a call . LED indicator becomes red . walkie talkie under the emergency call mode .
4. Let go [PTT] key to receive , when reply the emergency call , LED indicator becomes green . The screen shows group mark or ID and call ID
5. After the call , short-press key , then press pre-programmed emergency key to off ,delete all the emergency call and logout .
6. Radio back to home screen.

3) Emergency Alarm

This function called speech signal and allows to send emergency alarm and will trigger on another radio .

1. Press pre-programmed power on key.
2. Screen shows sending emergency call , exchange ID with other walkie talkie .LED indicator changes to red and emergency call mark will down on the home screen .
3. When receive the emergency call , the radio issues the emergency call and LED indicator changes to green , screen shows emergency call send out successfully .
Or , if the radio does not receive any confirm with the emergency call and out of the sending times ,the radio will with a message sound and screen shows the emergency call failed .
4. Radio logout the emergency mode and back to home screen .If the radio under silence mode, there will not any sounds or reminder during the emergency mode .

4) Emergency Alarm Call

This function allows you to send emergency call to other radio .After confirmed by the radio , the two radios can contact by a pre-programmed channel .

1. Press pre-programmed key to switch on
2. Screen shows sending emergency alarm call , exchange ID with other radio . LED indicator becomes red , emergency call mark will down on screen .
3. when the radio confirm with the sending emergency , screen will show emergency call successful and LED indicator change to green .
4. Hold the radio and place it between your lip with 2.5~3cm .
5. Press[PTT]key to call , LED indicator light changes to red , screen shows the group mark .
6. Let go [PTT] key to receive .
7. If on the“free channel message sound”function, let go [PTT] key , you can hear a message sound , means it channel is free for you to answer .
If there are not any transmitter within the limited time , the call failed .
Or press pre-programmed emergency call to off and logout the mode.
8. Radio back to home screen. If the radio is under the silence mode ,there are not any sounds or notices during the emergency mode ,not receive calls from target walkie talkie ,until press the [PTT] key .If the radio under“with voice mute”mode ,there are not any sounds or notices during the emergency mode ,not receive calls from target walkie talkie .Until press the [PTT]key to call or receive , then the screen will show up .

5) Voice Emergency Alarm

This function allows you to send emergency call to others ,after confirm with you , your radio microphone activate, allows you to call other radios with press the [PTT] key . This called “Emergency microphone”.If press [PTT] key during pre-programmed emergency microphone, radio will ignore the [PTT] and stay on emergency mode .

Notice: If press[PTT]key during the emergency microphone ,hold the key before duration within limits , let go [PTT]key to transfer .

1. Press the pre-programmed emergency start key .
2. Screen shows sending emergency call , LED indicator becomes red color and emergency call Mark will show on Screen .
3. Screen will show emergency call successful , then speak clearly .When under activated emergency microphone , radio transfer automatically without press [PTT] key before duration within limits
4. During transfer , LED indicator becomes red and emergency alarm mark will show on screen .
5. After the time of emergency microphone , radio stop to transmit .Press [PTT] key to transmit again

If the radio under the “Silence”mode, there are not any sounds or notices during the emergency mode , not receive calls from target walkie talkie , until pass the pre-programmed emergency microphone limited time and press with [PTT] key .If the radio under“with voice mute”mode ,there are not any sounds or notices during the emergency mode ,not receive calls from target walkie talkie .Until press the [PTT]key to call or receive , then the screen will show up .

Notice: If the emergency call failed , then the walkie talkie will back to home screen .

6) Restart Emergency Mode

Two situations will be happen:

- It will logout the emergency mode , if the walkie talkie change the channel under the emergency mode .While , reset the emergency mode under the new channel , the walkie talkie restart the emergency call .
- If press the Pre-programmed emergency key during the emergency call , the walkie talkie will be

stop the emergency call but restart later .

7) Logout Emergency Mode





The walkie talkie will logout emergency mode when any of the following situations happen :

- Confirm with the received emergency call, or
- Meet with the max emergency call, or
- press the pre-programmed emergency off key, or
- Press[PTT]key.

Notice: Emergency mode will be logout when power off the walkie talkie .Radio will not under emergency mode when the radio is power on next time .

Menu Operations

Menu Operation:

- 1.Press  to enter Menu, then press left or right  to access the menu function
2. Press ,select a function or go into a sub menu
3. Press  to return the higher level menu .

Note: After a period of time not activity radio will automatically exit and return to the main menu screen (hang time is set by the programming software).

Contacts Setting

Contacts is "address book" for handheld two way radio. Each entry corresponds to an alias or ID used to start the call. In addition, each item, according to the different content setting, relate to three types of call: group calling, single call, all call. Your radio support digital address book.

The Contacts' entries display in the following information

- call type
- Call the alias
- Call the ID







Note: you can add, delete, edit Contacts person in the digital address book(contacts).

Calling Log

Your radio can record all the recent dialed, received, and not answered call. Use the calling record function view and manage the recent calls.

To view the Latest Call Number

Menu items can show the not answer call ,received calls and dialed call.





1. Press  key to enter the menu mode.
2. Press the  key to the call history, and then press  key to choose.
3. Press  to the required list, and then press  key too choose.
4. The screen on the top of the list shows the recent entries.
5. Press  check list, press (PTT) at the current selected aliases or ID to start a call.

Missed Call's Screen











Whenever you miss call, two way radio will display a not answered call, select view or view later.

Note:

If you press (PTT),when you're viewing missing call number, radios will exit the missing call screen and establishing a single call again..












1. The screen shows the missing call, and the missing call's number and view.
2. Press  view missing call's ID, missing call's record list displayed on the screen. Press  to store or delete this entry; Or press  key to view later, and then press  key choice, return to the main screen.

Storing Missed Call List's Aliases or ID

1. Press  key to enter the menu mode.
2. Press the  key to call history, and then press  key to choose.
3. Press the  key to missed call, and then press  key to choose.
4. Press  key to missed call's alias or ID, and then press  key to choose
5. Press the  key to store, and then press  key to choose
6. Radio Shows flashing cursor, if needed, enter the ID alias, and then press  key.
7. The screen contacts have been saved.

You can also enter ID without alias.

Deleting the Call of Calling List

1. Press  key to enter the menu mode.
2. Press the  key to call history, and then press  key to choose.
3. Press the  key to missed call, and then press  key to choose.
4. Press  key to missed call's alias or ID, and then press  key to choose
- 5 Press  key to delete the entries, then press  key to select if you need to delete this entry.
- 6 Select "yes" ,then press  key to delete the entries, screen appears entry deleted; Or select "no" ,press  key to return to previous screen.

When you select a call list but there is no entry in, the screen will display the list is empty, if the keyboard is open at this time, will be a low tone hint sound.


Call instruction's Operation

Call instruction makes you can suggest a specific radio users in the possible time to call you back.

This feature applies only to the user alias or ID, and can be used through the menu by address book or manual dialing.

Receiving and Confirming the Call Reminder

When you receive a call reminder, screen shows call prompt, alternating transmit radio's alias or ID

1. YOU will hear sound of repeat, LED light turn and shine red.
2. Then press and release [PTT] to confirm the prompt, or press  to select "neglect" to exit the call reminder.

Message Function

Your radio can receive data, such as from another radio sent text messages, message of a maximum length of 144 characters, whole message is not longer than 50 lines.

Using a Single Bond to Send Call Button Prefabricated Messages

- 1,Press Preprogrammed , single bond calls to a predefined alias or ID sends a prefabricated text messages.
2. The screen displays a text message: < user/group name or ID > call, to confirm text messages were being sent
3. If the messages sent successfully, issued a prompt sound, and the screen display text message has been sent.

Or if you cannot send text messages, screen display text message sent failure. If message sent failure, intercom chance to return to the retransmission selection screen.

Managing Sending Failed Message

In retransmission selection screen, you can choose the following options:

Resend,

Forward,

Edit



Resending Message



1. Press  to resend same message to same user/group name or ID.



2. If the messages sent successfully, issued a prompt sound, and display messages sent or if you cannot send text messages, screen display text message sent failure.

Forwarding Message

Choose to forward message to another User/group name or ID.

1. Press the  key to forward, and then press  key choose.

2. Press  to the alias name or ID, and then press  key to choose.

Or press  key to manual dialing, and then press  button to choose, enter your user ID and press  key.


3. The screen display a text message: < user/group name or ID > call, to confirm text messages were being sent

4. If the messages sent successfully, issued a prompt sound, and the screen display text message has been sent.

Or if the message was not sent, issued a high tone hint sound, and screen displays text message sent failure.








Managing the Sent Messages

Once a message is sent to another radio, it will be saved in the "sent items". Send after sending a text message has always been to "sent items" at the top of the list. The sent items folder can store up to 50 recently send text messages. After the folder is full, the next send text messages will automatically replace the earlier messages in this folder.

Note: at any time pressing the  key can return to the previous screen.

Check the Sent Messages

Using the menu function:

1. Press  button to enter the menu mode.
2. Press the  key to information, and then press  key to choose
3. Press  to sent project, and then press  key to choose
4. Press the  key to the SMS, and then press  key choose. If the message from the email program, a subject lines, will appear in the top right corner of the screen icon indicates state of SMS.

Sending the Sent Messages





When the view sent messages, you can choose the following options:




Resend

Forward,

Edit

Delete

1. Check the message, press  key again
2. Press the  key to resend, then press  key to choose.
3. The screen displays: < user/group name or ID > call, confirm that it is preparing to send the same message to the same target radio
4. If the messages sent successfully, issued a prompt sound, and the screen display text message has been sent. Or if the message was not sent, issued a high tone hint sound, and screen displays text message sent failure. If message sent failure, intercom chance to return to the retransmission options screen. Press the  key to send SMS weight to the same user/group name or ID.


Note: Except for pressing the ,  key, if you change the volume and the press any other key, will return to this message. When you press [PTT] for a single call or group call, or as a response to the group calling, radio will exit the retransmission selection screen. If received text messages or remote sensing remote sensing information, emergency call, or call the police, or call reminder, radio will exit the retransmission selection screen. If you press [PTT] in response to a single call (in addition to the radio in the show did not answer the call screen), or at the end of all call, the screen will return to resend selection screen. Press  key, enter the forwarding, edit, or delete selection screen.



, choose forward, will choose the SMS sent to speak to other groups/user alias or ID.



, choose to edit, to edit the selected text messages before sending



- choose delete, delete the selected text.


Using the Menu Function



1 Press the  button to enter the menu mode.

2. Press the  key to information, and then press  key choice.

3. Press  to sent project, and then press  key choice.

4. Press the  key to delete all, and then press  key choice.

5. When it appears to delete messages, press  button, select "yes" project has clear screen display has been sent.

Or delete the text, press  to no, and click  key to return to the previous screen. When you select the "sent items" but not one of them text messages, the screen will display the list is empty, if the keyboard is open at this time, will be a low tone hint sound.

Receiving Messages



When your radio are receiving SMS, the left of the screen shows the sender alias or ID ICONS and text messages.

When receive text messages, you can choose the following options:


- Reading?
- Reading lager
- delete

Note: when the radio shows tip on the screen, please press (PTT), two way will exit and to establish a single call or text message screen group call.


Check the SMS

1. Press the  key to Read, And then press  key to choose

2. the selected text messages on the inbox opened, if the message is from the email program, it will appear a subject line.

3. Click  key to return to your inbox.

Or press  to reply, forward or delete messages.

Press  key to enter later view or delete selection screen:

Later, select view screen before returning to receive messages.

Choose delete, delete receive text messages.

Manage Received Messages

Use your inbox to manage messages. inbox can store up to 50 text messages at Most.

Two way radio supports the following text options:

Reply,

Forward,


Delete

Delete all,



store the message in the inbox in the order of received time .


Note: at any time according to the  key can return to the previous screen.



Check and View the Inbox Messages



1. Press the  button to enter the menu mode.

2. Press the  key to Message, and then press  key to choose

3. Press  to the inbox, and then press  key to choose.


4. Press the  key to check the message. If the messages are from the email program, it will appear a subject line.














5. Press the  key to choose the current text, then press  key again to reply, delete, or forward this message.

Unread messages:  , .Already read message:  .

Replying Inbox's Messages











Use the menu function:



1. Press  button to enter the menu mode.

2. Press the  key to message, and then press  key to choose
3. Press  to the inbox, and then press  key to choose
4. Press the  key to the SMS, and then press  key to choose. If the messages are from the email program, it will appear a subject line.
5. Press again  button to enter sub-menu.
6. Press  to reply, and then press  key to choose.
7. Press  key to prefabricated text messages, and then press  key to choose. Choose the required message after press  a flashing cursor, if needed, with the keyboard editing your message.
- 8 After Writing the text, press . The screen displays message : < user/ call group name or ID >, to confirm. text messages were being sent
9. If the messages sent successfully, issued a prompt sound, and screen display text message has been sent.
Or if you cannot send text messages, screen display text message sent failure. If message sent failure, radio return to the re-transmission selection screen.

Deleting the Inbox Messages

Use the menu function:

1. Press the  button to enter the menu mode.
2. Press the  key to message, and then press  key to choose
3. Press  to the inbox, and then press  key to choose
4. Press the  key to the SMS, and then press  key choice. If the messages are from the email program, it will appear a subject line.
5. Press again  button to enter submenu.
6. Press the  key to delete, and then press  key to choose.

7. Delete messages, press  key to "yes", then press  key to choose.



8. Screen appears short message has been deleted.



9. The screen back to inbox.



Deleting All Messages Inbox

Use the menu function:

1. Press the  button to enter the menu mode.

2. Press the  to the Message, and then press  key to choose.

3. Press  to the inbox, and then press  key to choose.

4. Press the  key to delete all, and then press  key to choose.

5. When it appears Deleting the messages, press  select yes, and then press  key to choose

6. Then The screen inbox was empty already.

When you select the "inbox" but not one of them text messages, the screen will display the list is empty, if the keyboard is open at this time, will be a low tone hint sound.

Encryption

If you enable this feature, which is beneficial to prevent other users on the channel by using the method of software encryption for unauthorized eavesdropping. The launch of signaling and user identification part unencrypted. Your radio must be enabled on the channel encryption function, can send encrypted, even if the receiving transmission is not must request to do so.

Basic Encryption

Two way radio can only be assigned more than one type of encryption. If users Call for encryption or decryption of data transmission, must make to be preprogrammed walkie-talkies and launch radio has the same "encryption keys" (suitable for basic encryption).

If your radio to receive different encryption keys or key values and key encryption call ID, you will hear the sound of the transport chaos encryption (basic).

Press the preliminary programming encryption keys on or off.






Secrecy

You can activate or kill any radio in the system. For example, you might want to disable a stolen radio, to prevent thieves use it, and enable it when you get it back.



Note: radio kill or activation is limited to activate the radios with these functions.

Radio Kill

Use menu mode

1. Press  key to enter the menu mode.
2. Press  key to Contacts, and then press  key to select, entries are in alphabetical order.
3. Press  key to the required alias or ID, and press  key to select.

Or press  key to dial manually, then press twice  key to enter a user alias or ID, and press  key to select.






4. Press  key to radio kill, and then press  key to select.
5. The display shows the radio kill: <user alias or ID> and the LED indicator light is red.
6. Wait for confirmation.
7. If successful, emit a beep and the screen displays radio kill successfully.

Or if it fails, emit a beep and the screen displays radio fail to kill.



During radio kill operation, do not press the [back] key, because you will not get a confirmation message.

Radio Activate

Use menu function:

1. Press  key to enter the menu mode.
2. Press  key to Contacts, and then press  key to select, entries are in alphabetical order.
3. Press  key to the required alias or ID, and press  key to select.

Or press  key to dial manually, then press twice  key to enter a user alias or ID, and press  key to select.







4. Press  key to radio kill, and then press  key to select.
 5. The display shows the radio activate: <user alias or ID> and the LED indicator light is red.
 6. Wait for confirmation.
 7. If successful, emit a beep and the screen displays radio activate successfully.
- Or if it fails, emit a beep and the screen displays radio fail to activate.

During radio activate operation, do not press the  key, because you will not get a confirmation message.




Scan List

Create a scan list and assign to a single channel / talkgroup, your radio can support up to 250 scan lists, each up to 16 members. Each scan list support mixed analog and digital channels. You can edit the scan list to add / delete channels or set the priority channel.

View Scan List Members


1. Use the channel knob to select a channel with pre-programmed scan list;
2. Press the  key to enter the menu mode;
3. Press  key to scan, and then press the  key to select;
4. Press  key to view / edit the list, and then press the  button to select;
5. Use  key to see members of list.

If you set the priority, the priority icon is displayed in the left of member alias, indicating that the member is the Priority

1  or Priority 2  channel; if the priority is set to None , no priority icon. In a scan list, you can not have more than one Priority 1 or Priority 2 channel.

Scanning instructions and methods

When scanning, your radio can view if there is a voice activity in current channel through circulating pre-programmed

scan list. LED lights flashing for a red light, and the scan icon  appears on the screen.

When scanning in dual mode, if you're in a digital channel and your radio locking an analog channel, radio will switch automatically from digital mode to analog mode throughout the duration of the call. And vice versa.

There are two scanning methods


- **Manual Scan:** According to a pre-programmed scan on / off key or menu function to start the scan, when you start scanning, radio will detect all channels / contact groups on pre-programmed scan list.



- **Auto Scan:** When you select an already activated auto scan channels / contact groups, radio scans from the activated auto scan channel.

Start and Stop Scanning

Press Pre-programmed scan on / off key or enter the scan menu function


1. Using the channel knob to select a channel of pre-programmed scan list;

2. Press  to enter menu mode;

3. Press  to scan, and then press  to select;

4. If the scan is disabled, the screen displays on or if the scan is activated, the screen displays off.

5. Press  to select

6. When the scan is activated, LED indicator flashes red and displays scan icon ; or when scanning is disabled, LED light goes out and does not display the scan icon.

Scanning Reply

Radio detect active channel/contact group when scanning, at this time radio will stay in the channel/ contact group, which is called "Scan hang time" pre-programmed time.

Procedure:

1. Hold the radio in a vertical position and keep one to two inches (2.5 to 5.0 cm) distance from the mouth. If you enable the "channel idle tone" function, when transmitting radio release [PTT] key, you will hear a short beep, indicating that the channel is idle, waiting for your respond.

2. Within the hang time by pressing [PTT] button, LED indicator light is red.

3. Release [PTT] key to respond.

4. If you do not respond within the hang time, radio will continue down the scan.

Settings

Settings includes the following contents:

Radio settings

Radio information

Radio configuration

Radio Settings

Radio settings includes:

Talk Around

Tone/Prompt

Transmit power

Backlight

Squelch boot interface










Keyboard lock
Language selection
LED indicator
VOX
Power-on password
Clock
Mode

Talk Around

When the transponder does not work, or when the radio located outside the range of the transponder but located within the range of other radios call, you can continue to communicate. This is called "talk around."

Press Pre-programmed repeater / talk around button, you can switch between repeater / talk around mode.

Use the menu function

1. Press  key to enter the menu mode.
 2. Press  key to Settings, and then press  key to select.
 3. Press  key to radio settings, and then press the  key to select.
 4. Press  key to talk around, and then press  key to select.
 5. If radio is currently in repeater mode, you can see the open, or if radio is currently in talk around you can see the close.
 6. Press  key to select.
 7. Screen showing turn on talk around  or turn off talk around.
 8. The screen automatically returns to the previous menu.
- Even after the shutdown, still remains talk around.






Radio Tone/Prompt







including the following contents:

All quiet
keyboard tone

Turn On or Turn Off Keyboard Tone

If desired, you can activate and deactivate call admission tone.

1. Press  key to enter the menu mode.
2. Press  key to settings, and then press  key to select.
3. Press  key to radio settings, and then press the  key to select.

4. Press  key to tone / prompts, and then press  key to select.
 5. Press  key to keyboard tone, then press  key to select.
 6. Press  key to select Open, then enable the keyboard tone, the screen shows keyboard tone is turned on.
- Press  key to select off, then turn off the keyboard sound, the screen shows keyboard tone is turned off.









Set the Power Level

You can set each channel power level to high or low.

Setting: High-power radio implement communications with relatively far distance radios. Low-power radio implement communications with relatively close distance radios.

Press pre-programmed high / low power selection key, you can switch high / low transmit power.

Using the menu function:






1. Press the  key to enter the menu mode.
 2. Press  key to Settings, and then press  key to select.
 3. Press  key to radio settings, and then press the  key to select.
 4. Press  key to power, and then press  key to select.
 5. Follow the on-screen instructions to change the current settings.
 6. Press  key to select the new power level.
 7. Return to the previous menu screen.
- Press [back] to return to the main screen, the screen displays the power level icon.



Control Screen Backlight


You can turn on or off the screen backlight according to the need. This setting also affects the menu button and the keyboard backlight.

Press a pre-programmed automatical backlight key to switch backlight settings

Using the menu function:

1. Press  key to enter the menu mode.
2. Press  key to Setting, and then press  key to select.
3. Press  key to radio settings, and then press the  key to select.

4. Press  key to backlight, and then press  key to select.









5. The screen displays always open, 5S, 10S, 15S options, press  key to select always open, the screen will remain lit and won't turn off, or if you choose 5S, 10S, 15S, the screen backlight will be off in the corresponding time under users without any operations.

Setting Squelch Level

You can adjust radio squelch level, thus filtering low signal intensity useless call or channel higher than normal value. Setting: Normal is the default, strict filtering (useless) call or background noise. However, a call from a remote location may also be filtered out.











Press pre-programmed strict / normal squelch button to switch between normal and strict squelch level.


Using the menu function:

1. Press  key to enter the menu mode.
2. Press  key to Settings, and then press  key to select.
3. Press  key to radio settings, and then press  key to select.
4. Press  key to squelch, and then press  key to select.
5. Select strict or normal, and then press  key to select.
6. The screen returns to the previous menu.

Lock the Keypad and Unlock the Keypad

You can lock the keypad to prevent accidental key input. Ways include manual and automatic keypad lock, which includes 5S, 10S, 15S three options.


1. Press  key to enter the menu mode.
2. Press  key to Settings, and then press  key to select.
3. Press  key to radio settings, and then press  key to select.
4. Press  key to keypad lock, then press  key to select.
5. Press  key to manual, and then press  key to select, screen show to select Manual, you need to long press [*] key to lock keypad on the main interface.
6. Press  key 5S, 10S, 15S, the screen shows to select the corresponding time, then keypad will be locked and return to the main screen if user have not any keypad operation after corresponding period of time.

7. To unlock the keypad, press  key.
8. Screen shows unlock keyboard, and then return to the main screen.

Language Selection









Radio supports the following languages:


- English
- Chinese

1. Press  key to enter the menu mode.

Turn On or Off LED Indicator

If desired, you can activate and deactivate the LED.

1. Press  key to enter the menu mode.
2. Press  key to Settings, and then press  key to select.
3. Press  key to radio settings, and then press  key to select.
4. Press  key to LED indicator, and press  key to select.
5. The screen displays open, press  button to enable LED light, screen shows to turn on the LED light.

Or The screen displays off, press  button to turn off the LED light, screen shows to turn off the LED light.

If you disable the LED light, buttons and keyboard backlight automatically turns off.

Turn On or Off VOX Function

This function allows you to initiate voice-activated hands-free calls on pre-programmed channels. Whenever a microphone with VOX function detect voice, radio will automatically transmit signals within pre-programmed period of time.


During radio operation press [PTT] key will disable VOX function, to re-enable the VOX function, do one of the following:








- Turn off and return on radio
- through the channel knob to change the channel, or
- Perform the following procedure:

Note: Enabling or disabling this function is limited to activate radios of these function.

Press pre-programmed VOX on / off key, to turn on or off this function.

Using the menu function:

1. Press  key to enter the menu mode.













2. Press  key to Settings, and then press  key to select.
3. Press  key to radio settings, and then press the  key to select.
4. Press  key to VOX, and then press  key to select.
5. Screen shows VOX off and VOX level 1-10S, if you choose to turn off, press  key to disable the VOX function, emitting a beep and the screen displays VOX off. If you choose 1-10S, VOX function is enabled, and the voice transmit sensitivity is on the corresponding level. If you activate the call allowing sound, you can initiate a call using a trigger word. Waiting sound end (if activated), and then speak clearly into the microphone.

Clock


Clock settings are divided into:












- Time
- Date

Time

1. Press  key to enter the menu mode.
2. Press  key to Settings, and then press  key to select.
3. Press  key to radio settings, and then press  key to select.
4. Press  key to clock, and then press  key.
5. Press  key to time, and then press  key to display the current time.
6. Press  key to enter time setting interface.
7. Press  key to move left and right to select the desired number, the selected number will reverse video display, then enter the corresponding numbers to change the time via the numeric keypad.
8. Press  key to save, the screen displays the time has been saved.

Date










1. Press  key to enter the menu mode.

2. Press  key to Settings, and then press  key to select.
3. Press  key to radio settings, and then press  key to select.
4. Press  key to clock, and then press  key.
5. Press  key to date, and then press  key to display the current date.
6. Press  key to enter the time setting interface.
7. Press  key to move left and right to select the desired numbers, the selected numbers will reverse video display, then enter the corresponding number to change the date via the numeric keypad.
8. Press  key to save, the screen displays the date has been saved.

Mode

Mode settings are divided into:

- CH Mode
- VFO Mode


1. Press  key to enter the menu mode.
2. Press  key to Settings, and then press  key to select.
3. Press  key to radio settings, and then press  key to select.
4. Press  key to mode and then press  key.
5. Press  key to select CH mode or VFO mode, then press  key to select the corresponding mode, the screen displays this mode is selected.
6. The main screen will show channel name or frequency (receiving frequency) according to the selected mode.

View General Two Way Radio Information








Radio contains the following information:

- Radio number

Radio version{software version, Codeplug version}








Note: At any time you can return to the previous screen by pressing the  key.

Check Radio ID

1. Press  key to enter the menu mode.
2. Press  key to Settings, and then press  key to select.
3. Press  key to radio information, and press  key to select.
4. Press  key to radio number, then press  key.
5. The display shows radio ID and name.

Radio Version

Display radio firmware version.

1. Press  key to enter the menu mode.
2. Press  key to Settings, and then press  key to select.
3. Press  key to radio information, and press  key to select.
4. Press  key to radio version, and then press  key.
5. The screen will display the current firmware version, Codeplug version.

Troubleshooting

Symptom	Try This
No power	<ul style="list-style-type: none">• Battery power may have run out, please update battery or recharge it.• Battery may not be properly installed, please take it off and re-install.
Battery lasts a short time after charge	<ul style="list-style-type: none">• The battery life is over, please replace new battery.
Can not talk to other members of your group.	<ul style="list-style-type: none">• Verify transmitting is within effective operating range.• Verify channel, frequency and code settings are correct.
Hearing other conversation on a channel (not group members')	<ul style="list-style-type: none">● Please change code settings, including all two way radio settings of your group.

CTCSS(Hz)

1-67.0	14-103.5	27-159.8	40-199.5
2-69.3	15-107.5	28-162.2	41-203.5
3-71.9	16-110.9	29-165.5	42-206.5
4-74.4	17-114.8	30-167.9	43-210.7
5-77.0	18-118.8	31-171.3	44-218.1
6-79.7	19-123.0	32-173.8	45-225.7
7-82.5	20-127.3	33-177.3	46-229.1
8-85.4	21-131.8	34-179.9	47-233.6
9-88.5	22-136.5	35-183.5	48-241.8
10-91.5	23-141.3	36-186.2	49-250.3
11-94.8	24-146.2	37-189.9	50-254.1
12-97.4	25-151.4	38-192.8	
13-100.0	26-156.7	39-196.6	

DCS

023	071	143	225	266	356	452	532	664
025	072	145	226	271	364	454	546	703
026	073	152	243	274	365	455	565	712
031	074	155	244	306	371	462	606	723
032	114	156	246	311	411	464	612	731
036	115	162	245	315	412	465	624	732
043	116	165	251	325	413	466	627	734
047	122	172	252	331	423	503	631	743
051	125	174	255	332	431	506	632	754
053	131	205	261	343	432	516	645	
054	132	212	263	346	445	523	654	
065	134	223	265	351	443	526	662	

Warranty Card

Contact : _____

Company Name: _____

ADD: _____

Post Code: _____

Tel: _____

Mob.: _____

Fax: _____

Email: _____

Ordered : _____

Model: _____

Ordered No.: _____

Purchased Date: _____

S/N) : _____

(EAN) : _____

Warranty Card No.: _____

Trouble Description:

Terms and Conditions

1) This warranty is provided only for product purchased from authorized dealer of Juston Electronic Equipment Co.Ltd (hereinafter called) .

2) **W**arrants this product to be free from manufacturer's defects for a specified period .

3) Within the specified warranty period , will repair or replace non consumable parts (excluding casing ,accessories ,batteries ,cable and consumable) that are damaged under normal use (by judgement of) at no additional charge .

4) The warranty will not be covered under the following conditions.

A, Out-of-warranty products .

B , The product is modified without approval.

C , Obvious attack of appearance whatever it is .

D , The product is subjected to unusual physical or electrical stress ,including physical damage ,burnt components and broken connectors ,and watered radio.

E , The serial number label is removed or altered .

5) This warranty card must be presented together with dealer's invoice when the defective product is returned for repair . Otherwise , reserve the right of not providing free warranty during the warranty period .

6) The customer is responsible for returning the defective product at his own expense .

7) Your warrant period is calculated from the date of invoice of this product .

Compliance with RF Exposure Standards

Your Fujian Juston Electronic Equipment Co.,Ltd. 2-way radio 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 Fujian Juston Electronic Equipment Co.,Ltd._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 Fujian Juston Electronic Equipment Co.,Ltd._50_% talk.

Your Fujian Juston Electronic Equipment Co.,Ltd. 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

Operating Instructions:

- Transmit no more than the rated duty factor of _50_% of the time. To transmit (talk), push the Push-To-Talk (PTT) button. To receive calls, release the PTT button. Transmitting _50% of the time, or less, is important because this radio generates measurable RF energy exposure only when transmitting (in terms of measuring for standards compliance).
- Hold the radio in a vertical position in front of face with the microphone (and the other parts of the radio, including the antenna) at least one inch (2.5 cm) away from the nose. Keeping the radio at the proper distance is important because RF exposures decrease with distance from the antenna. Antenna should be kept away from eyes.
- When worn on the body, always place the radio in a Fujian Juston Electronic Equipment Co.,Ltd. approved clip, holder, holster, case, or body harness for this product. Using approved body-worn accessories is important because the use of Fujian Juston Electronic Equipment Co.,Ltd.or other manufacturer's non-approved accessories may result in exposure levels, which exceed the FCC's occupational/controlled environment RF exposure limits.
- If you are not using a body-worn accessory and are not using the radio in the intended use **position in front of** the face, then ensure the antenna and the radio are kept at least 2.5 cm (one inch) from the body when transmitting. Keeping the radio at the proper distance is important because RF exposures decrease with increasing distance from the antenna.
- Use only Fujian Juston Electronic Equipment Co.,Ltd. approved supplied or replacement antennas, batteries, and accessories. Use of non-manufacturer-name approved antennas, batteries, and accessories may exceed the FCC RF exposure guidelines.