

GMRS-PRO Operate Manual

FCC Statement

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.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures::

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC SAR

SAR tests are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands, although the SAR is determined at the highest certified power level, the actual SAR level of the device while operating can be well below the maximum value. Before a new device is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the exposure limit established by the FCC. Tests for each device are performed in positions and locations as required by the FCC.

This radio complies with exposure limits for General Population/Uncontrolled RF exposure environment at operating duty factors of up to 50% .

For face-up, 25mm was used for test, this equipment should be installed and operated with minimum distance 25mm.

Non-compliance with the above restrictions may result in violation of RF exposure guidelines.

APP Introduction

Connect GMRS-PRO With Cell-phone

1 , For Android user

Go to Google Play download ,Search “BTECH Programmer”,



For IOS user

Search 'BTECH Programmer' in APPLE store to download

2 , Open the app, Turn-on the radio, then press **orange key** twice OR open the [Pairing] in the menu to enter the pairing state , a 'BEEP' will be heard and red-green light flashing means the radio is now in pairing status(APP requires Bluetooth permission, please make sure the Bluetooth status is on), The APP will search for active Bluetooth devices, and it will display as shown in Figure 1.

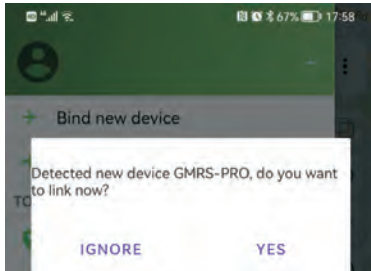


Figure 1

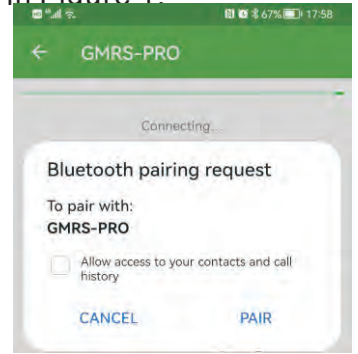


Figure 2

3 , Select YES to allow Bluetooth connection

4 , Bluetooth pairing requires confirmation of Bluetooth authorization,select PAIR to confirm the pairing status as Figure 3

----- Control interface -----

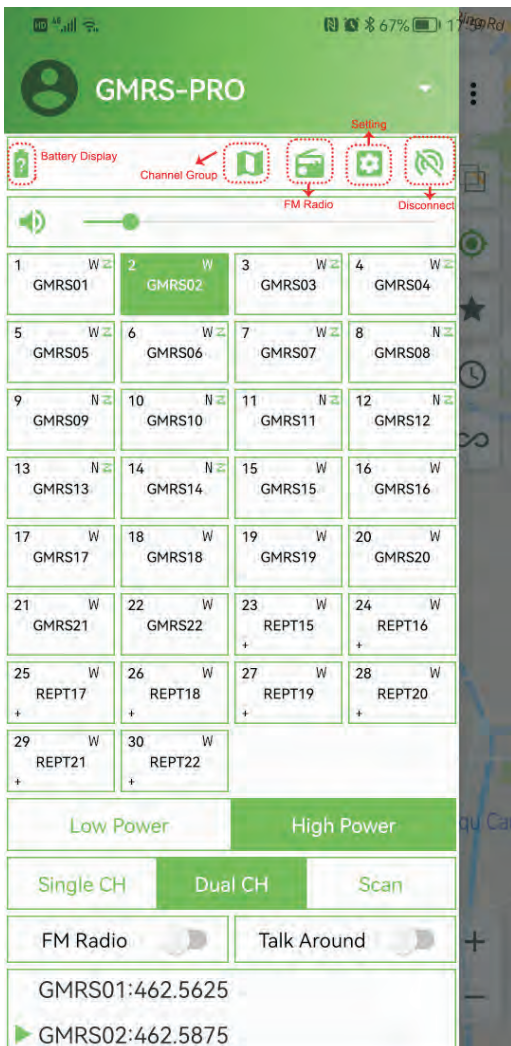


Figure 3

【Select Channel】 : click the channel square to switch the channel, and the radio will emit a "beep" tone.

【Low/Mid/High Power】 : Refers to the output power of the current channel.

【Single CH】 : Refers to monitoring the frequency of the current channel

【Dual CH】 : Refers to monitoring the frequency of two channels

【Scan】 : Means the channel list allows the scanned channel to enter the status of scanning

【FM Radio】 : Click to turn on or off the FM radio, the device will automatically turn off the radio function when the communication is busy, and automatically turn on the radio when idle. Click the radio icon to enter the radio operation interface

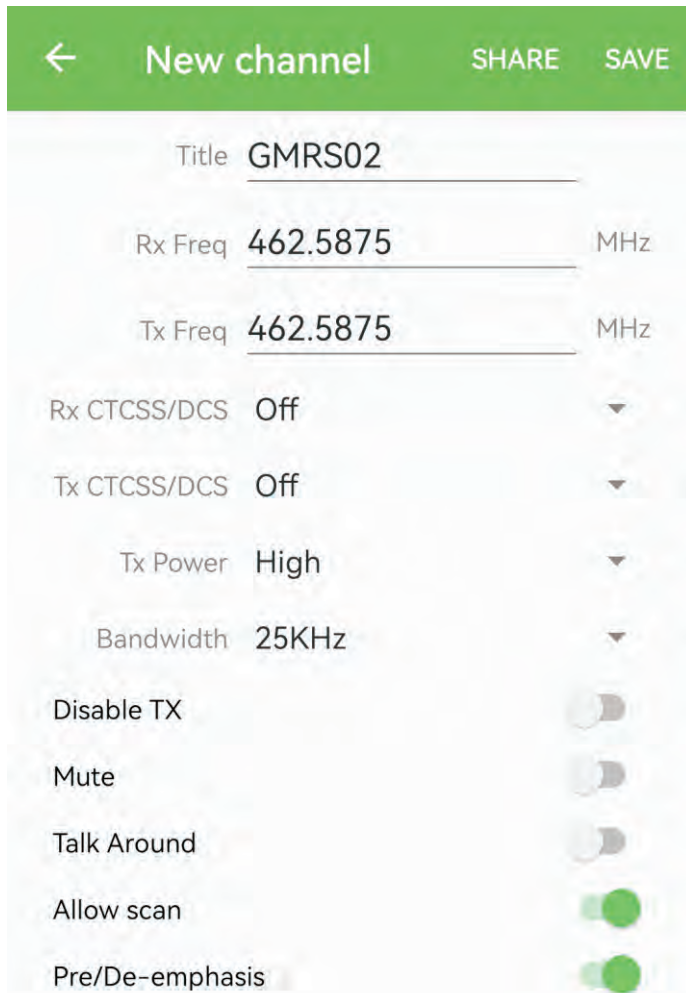
【Talk Around】 : Turning on means that the repeater mode is invalid, the RX and TX is the same frequency.

----- Edit channel -----

Long press the channel square, then select **【 Edit Channel 】** , When you edit the completion channel parameters ,click **【 save】** to save the Channel Parameters. Click **【More】** To show a more detailed channel editing interface

Warm: 

GMRS does not allow to change the frequency , if you need to use other frequencies, please create a new channel group,Please follow FCC regulations to use walkie-talkies



←	New channel	SHARE	SAVE
Title	GMRS02		
Rx Freq	462.5875	MHz	
Tx Freq	462.5875	MHz	
Rx CTCSS/DCS	Off		
Tx CTCSS/DCS	Off		
Tx Power	High		
Bandwidth	25KHz		
Disable TX			<input type="checkbox"/>
Mute			<input type="checkbox"/>
Talk Around			<input type="checkbox"/>
Allow scan			<input checked="" type="checkbox"/>
Pre/De-emphasis			<input checked="" type="checkbox"/>

【Title】 : Means the channel name, you can name the channel

【RX/TX Freq.】 : Click to edit transmit and receive frequency

【RX/TX CTCSS/DCS】 : Click to edit transmit and receive CTCSS/DCS.

【TX Power】 : Set the output power of the current channel

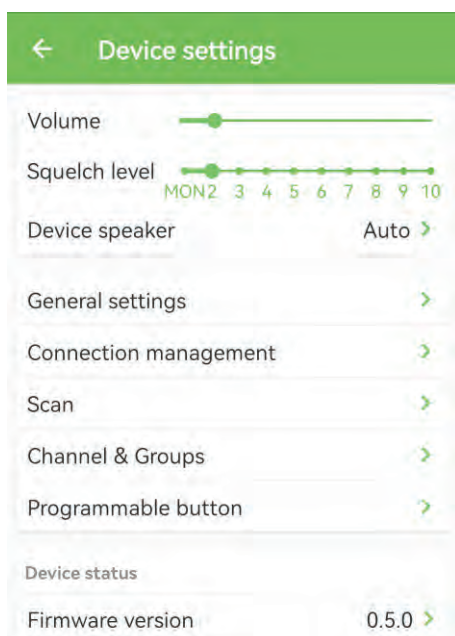
【Bandwidth】 : Set the communication bandwidth of the current channel

【Disable TX】 : When this option is turned on, it means that transmission is not allowed

【Mute】 : Turning on means means that this channel is muted

【Pre/De-emphasis】 : When this option is turned on, pre-emphasis and de-emphasis of voice modulation are activated

----- Setting Menu -----



←	Device settings
Volume	<input type="range"/>
Squelch level	MON2 3 4 5 6 7 8 9 10
Device speaker	Auto >
General settings	>
Connection management	>
Scan	>
Channel & Groups	>
Programmable button	>
Device status	
Firmware version	0.5.0 >

【 Volume】 : Adjust the volume of the device

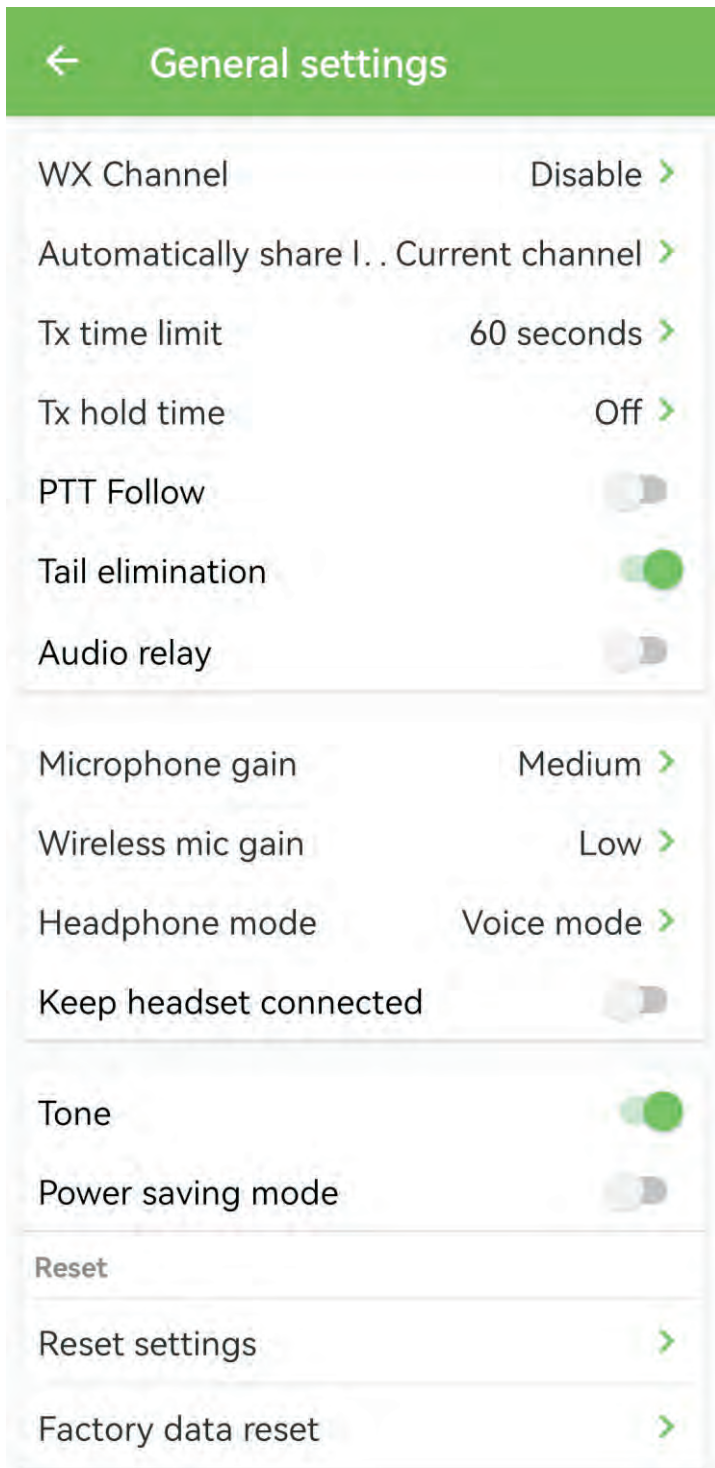
【Squelch Level】 : Squelch level adjustment, 0 is the monitoring level, the larger the number, the stronger the received signal strength

【Device Speaker】 : Working mode of built-in speaker
ON--Turn on the built-in speaker

OFF--Built-in speaker mute

AUTO--When connected to a wireless hand microphone or wireless headset, the speaker will be automatically muted, and the built-in speaker will automatically exit the mute state when the wireless device is disconnected.

General Setting



【Automatically Share Location】 : Select the channel used to send the location report

【TX Time Limit】 : Set the time limit for device transmission

【TX Hold Time】 : When connect to the repeater, the lag time for the end of transmission

【PTT Follow】 : PTT follows the current signal channel

【Tail Elimination】 : Automatically eliminate the noise after the end of transmission

【Audio Relay】 : Replay and transmit the received voice after the end (recording time is up to 30 seconds)

【Microphone Gain】 : Set the microphone gain of the wired microphone.

【Wireless Mic Gain】 : Set the microphone gain of the wireless microphone.

【Headphone Mode】 : Set the access mode of the headphone system (voice mode and phone mode).

【Keep Headset Connected】 : Select the continuous connection and trigger connection of the headset

【Tone】 : Set the operation prompt tone on the device

【Power Saving Mode】 : Turn on/off the power mode

【Automatic Shut-Down】 : Set the time for automatic shutdown.

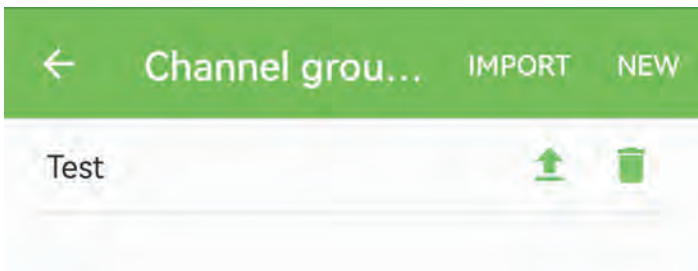
【Reset Setting】 : This function only restores the set menu function without changing the frequency/channel data stored by the radio.

【Factory Data Reset】 : This function will restore all the data of the radio to the factory settings. Please back up data such as frequency and channel before performing this operation

Connection management is Check the status of the external Bluetooth device connected to the walkie-talkie



Click [SCAN], you can scan for active Bluetooth devices and perform binding operations



Click [NEW] to create a new group, After completing all channel information, click the up arrow to synchronize to 2-6 channel groups of the walkie-talkie, Channel group 1 is the GMRS channel by default and cannot be changed

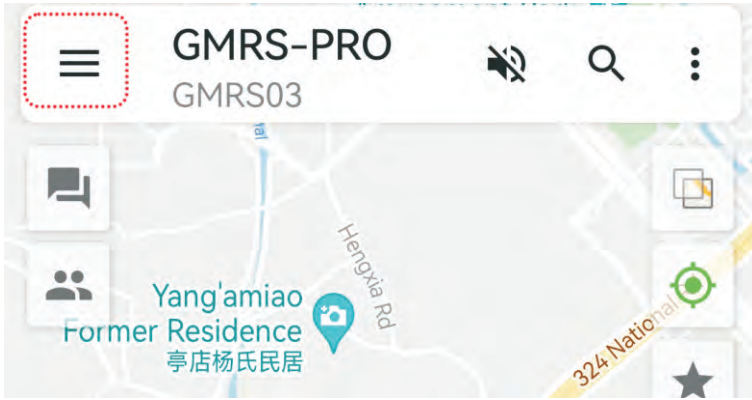
Tips:

On the channel group editing page, when you finish editing all the channel information and click [SHARE], a string of characters will be generated. You can save this string of characters or send it to the partner. When the partner copies this string of characters and opens the APP, all channel information Will be copied to his device



The programming button can define the shortcut operation of P1-P3 button, among them, T-CALL is 1750HZ, Radio Switch is turn on/off FM radio.

Firmware Version:When there is firmware that can be updated, click on the firmware version to update the firmware (Update firmware is only valid for Android devices, and Apple devices do not support the function of updating firmware)

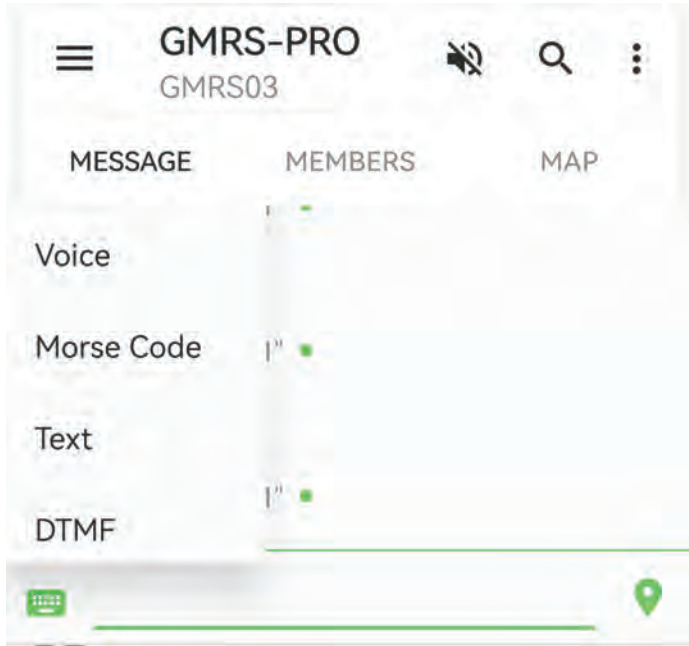


Click ☰ will return to the main interface

🔇 Means the cell phone will be muted, if the speaker is ON, The radio and cell phone will sound at the same time

🔍 Chat history will be searched. (If the radio is not connected to the phone, no chat history will be displayed)

🗨️ Go to the MESSAGE page



In MESSAGE page, Click on the microphone icon to switch between voice and text input modes.

----- Radio Operation -----



① Power and volume switch.

Turn the top knob clockwise to switch on. Turn the knob to increase or decrease volume level. When using a wireless BT hand microphone or earphone, please note the Speaker setting in the HT App needs to be Off or Auto, both settings will make the volume knob useless.

② GPS built-in antenna. (Do not press, the position of the face needs to be up and open to the sky to receive GPS signal)

Note : Local GPS time zone is synchronized from the phone .

③ P1 key (orange key). (Custom functions can be set in the APP)

1, [Double-click the top button] Used for pairing external devices such as mobile phones, Bluetooth headsets, BT wireless PTTs, BT wireless hand microphones, etc. A "ding-dong" prompt sounds when in external pairing state. You can also directly open the [Pairing] from the menu on the radio.

2,[Short press] to turn on or off the FM radio. Use the up and down keys on the keyboard for FM radio tuning. Press the up button to search for the radio frequency up, press down to search the radio frequency.

3,[Long press] emergency alarm key.

④PTT key

Press and hold the PTT transmitter button, and then speak in normal voice. Release the PPT button to receive the signal.

⑤ P2 key. (Custom functions can be set in the APP)

【Click】 Next channel (increment).

[Double-click] Direct frequency switching.

[Long press] Radio prohibition switch.

⑥P3 key. (Custom functions can be set in the APP)

【Click】 Previous channel (decreasing).

[Double click] T-Call (transmitting 1750 signaling).

[Long press] Switch between high and low power.

⑦ Shortcut keyboard.

Refer to the detailed explanation below for detailed key functions.

⑧Headphone jack:

Dedicated headphones can be connected.

Keypad Function keys:



①Up key.
Page up.

②OK/Enter key.
In the menu mode, press this key to enter the menu setting.

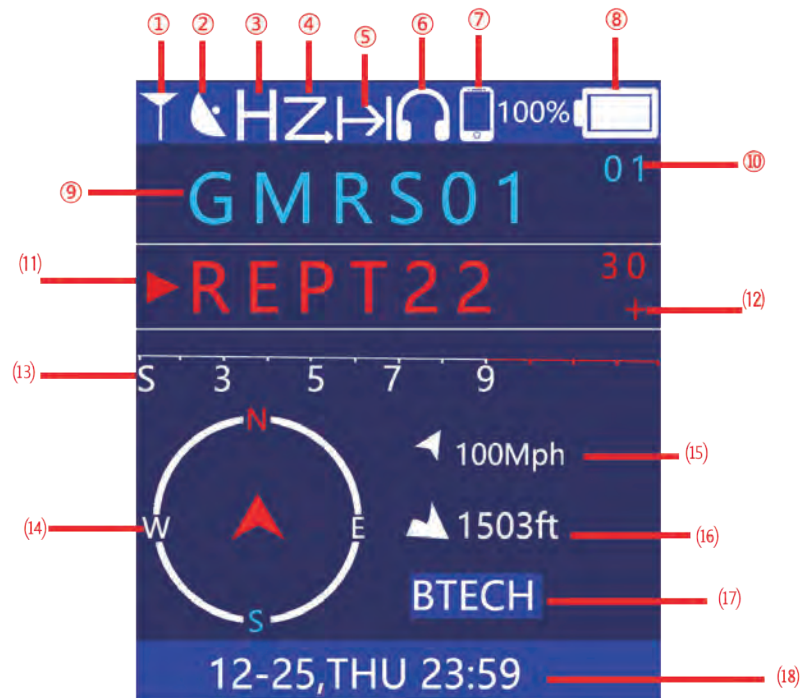
③Menu key.
Turn on the menu function.

④ Down key.
Page down.

⑤ Back/Change screen key.
In the menu mode, it is the return key.
In the standby screen mode, it is the switch screen key. Press this key repeatedly to switch back and forth between the three screen modes.

⑥ Exit key.
Exit the current setting.

Icon function



① Radio.
Represents the normal standby state of the radio.

② GPS satellite.
On behalf of the GPS function. GPS is turned on by default when powering on.

③ Power icon.
H stands for high power and L stands for low power.

④ Scan.
It means the scanning function is on.

⑤ Talk Around
It means the talk around function is on.

⑥ Connect headset
The device is connected to wireless headset.

⑦ Connect to mobile phone.
The device is connected to the mobile phone.

⑧ Battery power.
Battery level display. (The specific battery percentage can be queried by entering [Status] in the menu)

⑨ Channel Name:
The current channel Name

⑩ Channel No.:
The current channel No. for the frequency.

⑪ Main band
After dual standby is turned on, the frequency of the main band will be red and with red arrow.

⑫ Repeater Shift Direc
+ means shift Positive direction,-means shift Negative direction

⑬ Field strength table.
When receiving, display the receiving field strength indicator.

⑭ Electronic compass.
Display the electronic compass.

⑮ Speed
The current movement speed of the device

⑯ altitude
The altitude of the current location of the device

⑰ ID Name
The device name of this device, you can customize the ID name in the menu (Signaling setting)

⑱ Status bar.
After receiving the GPS or connecting the mobile phone, the actual time and date of satellite time service or network time service will be displayed.

Transmitting status indicator
The arrow up ^ means transmitting, and the arrow down v means receiving.

Electronic compass



① Sensor prompt icon.

The "=" icon in the middle of the electronic compass means that it is disturbed by the external environment. You need to enter the menu [Compass] and perform correct ion operations according to the on-screen instructions. At this time, after entering the menu [Compass], the screen will prompt "Please place the device on a level surface (screen facing up), and then press the [OK] button in the upper left corner of the keyboard.



② Sensor prompt icon.

The "8" icon in the middle of the electronic compass indicates that it is disturbed by the external environment. You need to enter the menu [Compass] and perform correction operations according to the screen prompts.

At this time, after entering the menu [Compass], the screen will prompt "Please calibrate the sensor according to the figure 8 rotating device".

At this time, please hold the device and stretch it forward, and draw the figure eight (ie " ") quickly and forcefully. It is better to complete one to eight characters in about 2 seconds.

Tips: Try to keep the device away from strong magnets, which will affect the device sensors.

If it is sometimes close to a strong magnet, the screen will prompt an icon, and the icon will be restored immediately after it is far away, and no correction is required at this time. If the electronic compass is found to be unresponsive during use, please enter the menu [Compass] to calibrate the sensor to avoid being misled by the strong external magnetism.

Edit frequency and memory settings.



Refers to the next digit of the cursor.
Press this key to move the cursor to the next digit.



Refers to each choice of receiving and transmitting parameters, that is, selecting the item that needs to be adjusted.
Press [Down] key to move down list.

③ Cursor.

Under the current cursor, you can use the up or down keys to select the specific value you need.

Split screen display



① The user's name or call sign is displayed in single standby.

② Display the last contact information received.
Such as the name or call sign of the other party plus location information and location direction. (256ft)

③ Display a list of recently received contact information.
Press the key to select the list of information to be viewed.
Press [Enter] key to enter to view the detailed location information and location direction of the other party when communicating.

Note: In the standby mode, please press the [Back] key on the upper right corner of the keyboard to switch back and forth between the above three screens.

Radio Menu Settings

FM Radio

Press the menu key to enter the menu, turn on the FM radio, and press the up key to scan the available frequencies up.

Press the button to scan down the available frequencies, press the OK button to exit the radio mode Signaling

ID:Your Name ID

Send ID: Allow Send Your ID to Your Partner,

Position:Allow sending your current location to partners

Allow Check:Allow your partner to send instructions to check your current location, and your location will be feedback to the partner's device.

Send Message: Send text message to partners (Channel 23-Channel30 Prohibit sending data packets)

Call: When the receiving device receives the CALL command, the walkie-talkie will ring, please enter the ID to be searched

Check:When the receiving device receives the CHECK command, the walkie-talkie will feed back the current location ,This option requires the receiver ALLOW CHECK to be effective,please enter the ID to be searched

Nearby People: This option sends the CHECK command at the current frequency, and all walkie-talkies of the same frequency will feedback their current position after receiving the command. This option requires the receiver ALLOW CHECK to be effective,

Radio Setting

Dual-Watch : If active,it will be Watch for two channel,Press the up and down keys to switch between the main band and sub band ,and press the side key to switch the waiting channel.

Scan: If active,the radio will be in scanning state,and all channels that are allowed to be scanned will be scan.

Talk Around:On a channel with a offset frequency, if the option is activate, the transmit frequency will be the same as the receive frequency

Power:Change the output power

Channel Group: Change the Channel Group For Use.

Add A New Frequency

Tips:GMRS only allows the creation of new channels between channel groups 2-6

① Add a regular frequency

Create a new frequency list in new Group,press [enter] button to the channel list , press up or down keys to select channel No. press [edit] button to edit the frequency, Press [edit channel] Then accroding

Edit frequency and memory settings to set your frquency.

②Add a GMRS frequency

Create a new frequency list in new Group,press [enter] button to the channel list , press up or down keys to select channel No. press [edit] button to edit the frequency, Press [GMRS Channel] to select the Channel, Then Press [edit channel] ,accroding **Edit frequency and memory settings** to set your frquency.If you add the GMRS frequency, all the restrictions stipulated by the FCC will take effect, and you can only modify the parts that are allowed to be modified,If you want to cancel the GMRS channel information, you can select [Clear Channel],

Squelch Level : Adjust the squelch Level of the received signal, level 0-9, the smaller the number, the easier it is to receive weak signals.

TX Time Limit:Limit the maximum time of each transmit.

PTT Follow: Turn on this option, when the sub band receives a signal, press PTT to reply within 10 seconds, you can send directly at the sub band frequency without switching to the main band.

Tail Elimination: Turn on this option, No end tone will be heard between walkie-talkies of the same brand

Audio Relay: Record the received voice and then transmit it, the recording time is up to 30 seconds,**Turn on this feature, you will hear repeated voices, please be cautious.**

Sound Setting

Speaker: ON means the speaker always on, OFF means the speaker always off

AUTO means automatic adaptation, when the earphone is connected, the speaker is silent.

Mic Gain: Adjust the sensitivity of the microphone, there are three level High, Mid, Low for choose.

BT Mic Gain : Adjust the sensitivity of the bluetooth microphone, there are three level High, Mid, Low for choose.

Keep Connected: Turning on this option means that the connection to the Bluetooth SCO will not be disconnected, and the startup speed can be increased, but causing the Bluetooth headset to not be able to play music

Tone: Turn on or off the keyboard beep

Display Setting

Brightness: Adjust the screen brightness, 1 is the lowest, 15 is the highest, the brighter the screen, the more power consumption.

Screen Timeout: each time the screen turns off after it lights up, NEVER means the screen is always on.

Time Zone: If the time zone is incorrect, please use this menu to manually correct

Connect external Bluetooth devices

Tips: No matter what Bluetooth device is connected, the device and the other party need to enter the pairing state, To view the status of the paired device, please check the connection management of the APP

1 , Connect to Bluetooth PTT

Turn-on the radio, then press **orange key** twice OR open the [Pairing] in the menu to enter the pairing state , a 'BEEP' will be heard and red-green light flashing means the radio is now in pairing status.

Long press the Bluetooth PTT, red-green light flashing means the bluetooth PTT is now in pairing status, After 10 seconds, the connection will be successful. Press PTT, and the transmitter light of the radio will in red.

Tips: When you connect Bluetooth PTT, you need to connect a Bluetooth headset to get the microphone so that you can send voice, Each brand of Bluetooth headset enters the pairing mode differently, please read the headset manual carefully before pairing with this device.

2 , Connect to Bluetooth speaker mic

Turn-on the radio, then press **orange key** twice OR open the [Pairing] in the menu to enter the pairing state , a 'BEEP' will be heard and red-green light flashing means the radio is now in pairing status. Turn on the bluetooth speaker mic, double click the pair key to enter pairing status. The headset icon will be displayed in the toolbar when pairing is successful.

NOAA

WX Scan: Turn on weather scan, the device will always be in the scan state until it finds the signal

WX Channel: 1, 162.550MHz 2, 162.400MHz 3, 162.475MHz 4, 162.425MHz
5, 162.450MHz 6, 162.500MHz 7, 162.525MHz

WX Alert: Turn on this option, when the weather warning message is received, the device will sound an alarm, During the alarm state, you can press any key to mute the alarm message, and the alarm state will be released after 3 minutes

Manually Search for GPS signals

The GPS status of the walkie-talkie is on by default. If you want to search manually, open the GPS status menu and place it statically perpendicular to the ground for about 1 minute in an open outdoor area. The GPS status page will display the longitude, latitude, altitude and other information of the current location.

If the displayed time does not match the local time, please switch to the Time Zone menu and select your corresponding time zone.

Reset Procedure

In standby mode, press and hold the top button (P1) and the button (P2) below the PTT at the same time to restore the factory settings