Icon Information

The following icons are available through this manual:

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Caution: indicates situations that could cause damage to your terminal.

Note: indicates tips that can help you make better use of your terminal.

Term Explanation

Key Operation

Short press: to press a key and release it quickly.

Long press: to press and hold down a key for above 1.5 seconds.

Hold down: to press a key and remain holding it down.

Individual Call

Individual call is a simplex or duplex call initiated by a single user to another user, involving the calling party and the called party only.

Group Call

Group call is a simplex call initiated by a single user to a group of users, involving the calling party and all the group members.

Emergency Call

Emergency call has the highest priority, and is very helpful for the user to request help when emergency occurs. Generally, it is set to group call type. Emergency call can break off any non-emergency calls in progress.

DMO (Direct Mode Operation)

DMO mode allows terminals to communicate directly with each other in simplex mode, without network restriction. But functions that require network access, such as telephone call and short message, will be disallowed.

TMO (Trunked Mode Operation)

TMO mode allows terminals to communicate with each other via the TETRA network, in half duplex or full duplex mode. Functions that require network access are supported.

To operate in TMO mode, the terminal must be granted authorization by your service provider, and must be within the network coverage.

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Checking Items in the Package

Please unpack carefully and check that all items listed below are received. If any item is missing or damaged, please contact your dealer.

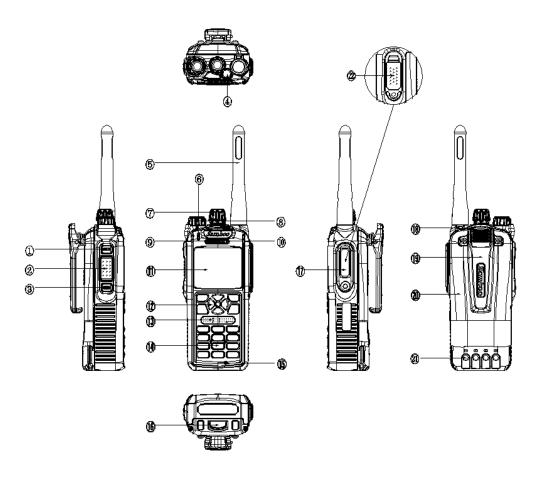


Note: Frequency band is marked on the label of antenna; if not, please refer to the label on the terminal for frequency band information

Radio Unit

Product Overview

Terminal Controls



No.	Part Name	No.	Part Name
1	P1 (programmable)	2	PTT Key
3	P2 (programmable)	4	Emergency Key
5	Antenna	6	LED Indicator
7	Channel Knob	8	Volume Knob
9	Receiver	(1)	Directional microphone
(1)	Transflective TFT Color	(2)	Function Keypad
	Display		T unction Keypau

13	Speaker	13	Numeric Keypad
13	Omnidirectional Microphone	16	Battery Latch
17	Accessory Jack Cover	18	Strap Hole
19	Belt Clip	20	Battery
2)	Charging Piece	22	Accessory Jack

Function Keypad



Programmable Keys

Most of the terminal's keys including P1, P2, four Navigation Keys, Call Key, numeric keys

, can be set as shortcuts to terminal functions or menus.

Then you may quickly access menus or features through press of a key.

Before Use

Charging the Battery

Only use the charger and battery specified by Samhoo. The charge LED will indicate the charging progress.

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Procedures

- 1. Connect the power adapter to an AC source socket and the rear jack of the charger;
- Place the terminal with the battery attached, or the battery alone, into the charger,
 Make sure the battery's charging pieces are in good contact with the charger's terminals;
- 3. The charging process begins when the charger LED solidly glows red.
- 4. When charging is complete, green LED glows. Then remove the battery or the terminal from the charger.

The standard 2000mAh Li-Ion battery may take 3 hours for an ordinary charge. But before initial use, please charge it for 5 hours to achieve optimal battery performance.

LED Indications and Charging Progress

LED Indicator	Status
LED flashes red slowly.	Standby (no load)
LED solidly glows red.	Charging
LED solidly glows orange	Charging (above 85%)
LED solidly glows green	Fully charged
LED flashes red rapidly	Failure

Assembly and Disassembly

Attaching the Antenna

- 1. Turn the antenna clockwise to fasten it.
- 2. To remove the antenna, rotate it counter-clockwise.

Attaching the Battery

- 1. Fit the extensions at the top of the battery into the slot at the top of the terminal's body.
- 2. Slightly press the bottom of the battery until a click is heard,



Note: If the battery is loose or unsecured, please remove and attach it again.

To remove the battery, turn off the terminal first. Then slide the battery latch upwards to unlock the battery.

Attaching the Belt Clip

- 1. Remove the screws.
- 2. Align the screw holes on the belt clip with those on the terminal's body, and then tighten the screws.

To remove the belt clip, loosen the screws.

Attaching Accessories

- 1. Open the accessory jack cover as the arrow shown.
- 2. Align the plug with the accessory jack.
- 3. Tighten the screw on the plug.

To remove accessories, loosen the screw.

Status Indicators

LCD Icons

The LCD of your terminal displays the terminal status, text entries, and menu items. The following are the icons that appear on the terminal's display.

Icon Name	Icon	Terminal Status
Battery Strength Icons		Low battery
		More bars indicate more battery power
RSSI	Ψ×	No signal
	Yal	More bars indicate better signal strength
Message Icons	M	Unread message
Iviessage icons	×	Inbox is full and all are unread messages
Operation Made Joans	**************************************	The terminal currently operates in TMO mode
Operation Mode Icons	D	The terminal currently operates in DMO mode
	Ø	Silent
Profiles Icons	K	Ring and vibration
	Įľ.	Vibration only
Accessory Icon	n .	An audio accessory is connected
Call Icon	C	A call is in progress
Talkgroup Selection Icon	0	Selecting a talk group

LED Indicator

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

Terminal Status	LED Indicator
Transmitting a call	LED solidly glows red.
Receiving a call	LED solidly glows green.

Telephone Call	LED solidly glows red on both parties.
Low battery	LED flashes red slowly.
Channel free	LED flashes green slowly.
Channel busy	LED solidly glows orange.

Basic Operations

Turning the Terminal On/Off

To turn the terminal on, Please clockwise [power switch / volume control knob] until you hear a "click" sound;

To turn the terminal off, Please this anti clockwise rotating knob until you hear a "click" sound.

Adjusting the Volume

After startup, the clockwise rotation [power switch / volume control knob] can increase the volume, counter clockwise to decrease the volume.

Channel Selection

rotating channel selection knob to select the desired channel.

Locking/Unlocking the Keypad

To lock or unlock the keypad, press \mathbf{OK} and then $\boxed{* \ ^{\square}}$.

When the keypad is locked, you can also answer and reply to calls. After a call is completed, the keypad will return to be locked.

Switching Operation Mode

You may switch the terminal between TMO and DMO through any of the following methods:

1. Menu selection

Press the Options key to access the menu, and then select TMO or DMO.

2. Channel Knob

Each channel radio can be configured as analog channel by the dealer or digital channel. If the region contains digital channel and analog channel, you can use channel selection knob switch to analog channel and digital channel.

Call

Individual Call

Transmitting an Individual Call

Input the number you want to call through the keypad, or go to the menu
 PhoneBook or Call Log to select the contact you want to call.

Then hold down the PTT and speak into the microphone, to transmit a simplex call. Receiving and Responding to an Individual Call

When the PTT is in released state, the terminal is always ready to receive calls.

When the other party stops talking, you can hold down the PTT to call back.

Group Call

Available talk groups are preset by your dealer. DMO and TMO operations are the same in both modes.

Transmitting a Group Call

- 1. In the home screen, Rotate the knob to switch it to talk group selection mode
- 2. Press the knob again or press **OK** to confirm.
- 3. Hold down the PTT to transmit a group call.

Receiving and Responding to a Group Call

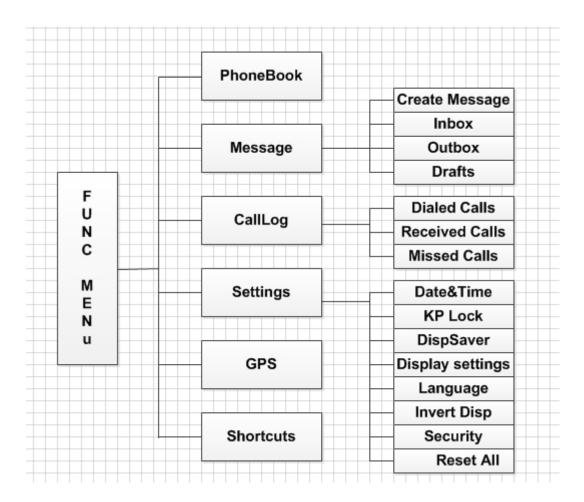
When a group call is received, you need not make any operation. When the calling party stops talking, you can hold down the **PTT** and speak into the microphone to call back.

Emergency Call

Both DMO and TMO support emergency call, and operations are the same in both modes. Long press the top Emergency key to transmit an emergency call. To terminate the call press

Menu Navigation

Function



PhoneBook

This menu is used to store your contact information. It can contain up to 500 entries. Each entry consists of contact name and contact number. To access this menu, press "Func -> PhoneBook" in idle mode, and then you can perform these operations:

- ■Create new contact
- ■View a contact
- Modify a contact

■Delete a contact

■ Delete all contacts

■ View phonebook memory

■ Search a contact (by name)

■Call a contact

With this menu, you can make a duplex (for TMO only) or simplex call to a contact.

The method is as follows:

1. Select a contact from the menu;

Press and hold down PTT key to make a simplex call,

Message

■Create Message

(1) Status Message

Status Message is predefined by your dealer. You can choose to read and send them, but

no editing is available.

(2) User Message

This option allows you to create a new text message with 140 bytes at most. The receiving

party can either be an individual or a group.

■Inbox

All received messages are saved here. It can contain up to 50 entries. When a new

message arrives, the icon will appear in the status bar. Press View to read the new

message right away or press Back to view it later. When the inbox is overflowed with

unread messages, the icon will appear in the status bar. Please sort your inbox in

time to receive more messages. For any message, you can perform these operations:

Reply: to reply to the message sender;

Delete: to delete the current message;

Delete All: to delete all received messages;

Individual: forward the message to an individual user;

Group: to forward the message to a group;

Extract No.: to extract the number:

Call: to call the message sender.

■Outbox

All sent messages are saved here. It can contain up to 20 entries. The operations

available for any message in outbox are: Delete, Delete All, Individual, Group, Extract No.,

and Call.

■ Drafts

You can save up to 10 drafted messages here. For any message, you can choose to

delete, edit or send it.

Call Log

This terminal can save up to 20 entries in the option Dialed Calls, Received Calls and

Missed Calls respectively. When there is a missed call, appropriate indications will be

given on the display.

After selecting an entry, these options are available: Call, View, Save, Delete, Delete All.

Profiles

■Normal

In this mode, the terminal will alert you to an incoming call or a new message by giving

ring or vibration indication. To match your actual needs and preferences.

■Silent

In this mode, no ring or vibration indication will be given when a new call or new message

arrives.

■Vibration

In this mode, only vibration indication will be given when a new call or new message

arrives.

Settings

■ Date&Time

This option allows you to set the current date, time and time format.

Press **Left** or **Right** key to select the item to be set, and then input the right value through keypad.

■KEYPAD Lock

This option allows you to enable or disable the Auto Keypad Lock feature. If it is enabled, the keypad will be locked automatically after the programmed time (10 seconds by default) elapses

■DispSaver

This option allows you to enable or disable Display Save feature. If enabled, it will be activated automatically after the programmed time (10 seconds by default) elapses.

■Display

- Invert Disp
- This option allows you to invert the displayed information by 180° so that you can access it easily.

Note: when the display is inverted, the function of **OK** key and **Back** key exchanges.

Brightness

You can use Left or Right key to adjust the brightness level.

➤ KP Light

This option allows you to enable or disable keypad light. The lighting duration is programmable with the programming software.

■Language

This option allows you to select your favorable language. Currently, this terminal only supports English and Simplified Chinese.

■Man Down

When this feature is enabled, the radio will send an emergency alarm to the predefined ID automatically once it falls over or tilts by 45°. At the same time, it would sound sharp alarm tone. With this feature, you can enjoy enhanced personal protection.

■Security

➢ PIN Code

To set PIN code On or Off, you will be required to input the PIN code. The radio will be locked when wrong PIN code is entered up to the predefined times. To unlock it, you need to enter the right PUK code. Then the radio will bring you to an interface, where you can reset your PIN code or press **Back** key to restore it to default value. However, when wrong PUK code is entered up to the predefined times, the radio will be disabled temporarily and shows "Radio Disabled".

Note: the number of times that you are allowed to input wrong PIN or PUK code is programmable through the programming software. When the radio is disabled, contact your dealer to activate it. The default PIN code is 1234, and the default PUK code is 12345678.

Change PIN code

This option allows you to change the PIN code. Before changing it, you need to enter the old PIN code correctly. Then you will be asked to input your new PIN code twice. Please make sure the codes you entered are identical; otherwise, you have to reset it again.

■Reset All

This option allows you to restore all settings to default value. To perform this operation, you need to input the right PIN code.

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GPS Function

The basic position information display

Basic information includes the date, time, longitude, latitude, altitude, number of satellites. The date and time display value associated with the terminal sets the time zone.

Time correction

This function using the effective GPS received correction of PT580 terminal time.

This function can be combined with time zone option.

The time zone setting

This functionality can be according to the terminal position or the users need to set the GPS system time zone, a total of 25 time zones options, for time correction.

Data transmission

Combining transmission mode set to use this function, used to send other terminal or the control center for the GPS basic information, are transmitted to the personal and sent to the group of two options.

Shortcuts

 To enhance operation convenience, you can assign your desired function to a specific key as shortcut. In this way, you can press the key to access a function easily.

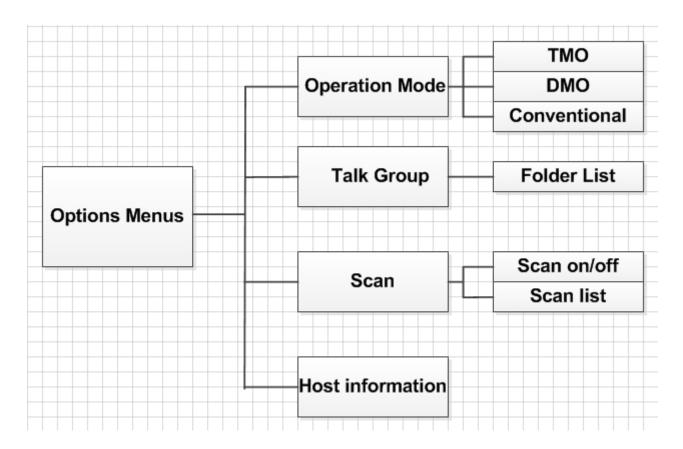
> To create a shortcut

- 1. Select Shortcuts to access the list of shortcut keys;
- 2. Select your desired key, and press **Modify** to access the list of assignable functions;
- 3. Select your desired function, and press **OK** to confirm.

To cancel a shortcut

- 1. Select Shortcuts to access the list of shortcut keys;
- Select the shortcut key to be cancelled, and press Modify to access the list of assignable functions;
- 3. Select Empty, and press **OK** to confirm.

Options



- In the home screen, press **Options** to access this menu. Here we are going to introduce all menu items based on TMO mode.
- Operation Mode
- Choose this option in the "TMO", "DMO", " Conventional " mode switching between.
- Talk Group
- In the "options" menu, select "group management" into the group folder list, the list of files for each group can perform the following operations:
- Channel/Group Add
- Channel/Group Delete
- Channel/Group View
- Scan

To enter the menu, press [options] button to enter the main menu and select "scan".

Scan on/off

Scanning function can help you to listen to the communication activities of other channels, to understand the current status of related group activities. You can use this option to open or close the scanning.

Scan list

You can create a scan list by the dealer for each channel, each scan list contains at most 32 channel, can contain both digital channel also contains the analog channel. Choose to enter a scan list, you can perform the following operations:

Add Channel

Add a new channel in the current scan list.

• Edit the priority channel

You can use the currently selected channel is arranged as a priority channel or non-priority channel. If focus on a certain channel activity, which can be set as the priority channel. Scanning frequency priority channel is higher than that of non-priority channel.

• Delete Channel

Delete a channel scan list, but you cannot delete the first channel scan list.

■ Host information

This option can check the machine information, such as the ID, band, version information.

Troubleshooting

Symptom	Solution	
The terminal can not be	Please check whether battery power is too low or whether	
powered on.	the battery fails to function.	
Network registration fails or network can not be found.	 Please check the signal strength and see whether your terminal is within the network coverage. Contact the network administrator, and confirm whether the terminal has acquired appropriate authorization. 	

Note: If the above solutions can not fix your problems, or you may have some other queries, please contact us or your local dealer for more technical support.

Care and Cleaning

To guarantee optimal performance as well as a long service life of your terminal, please

follow the tips below.

Terminal Care

Keep the terminal far away from substances that can corrode the electronic circuit;

Do not hold the terminal by its antenna or earpiece cable directly;

Attach the accessory jack cover when accessory is not connected.

Terminal Cleaning

Clean up the dust and fine particles on the terminal parts with a clean and dry lint-free

cloth or a brush regularly.

Use a non-woven cloth with neutral cleanser to clean the keys, control knobs, LCD

and jacks after long-time use. Do not use chemical preparations such as stain

removers, alcohol, sprays or oil preparations. Make sure the terminal is completely

dry before use.

Caution: Power off the terminal and remove the battery before cleaning.

QA and Repair Clause

Shenzhen Samhoo Technology Co. Ltd. (hereinafter referred to as Samhoo) commitment,

where the production of Samhoo walkie talkie products, since the date of purchase, in

normal use, maintenance and operation conditions, defects in material or workmanship,

can enjoy the following provisions warranty service.

1. The Scope And Duration Of The Warranty

Host 18 months

Accessory (including antenna, battery, charger and a belt clip etc.) 6 months

2. The warranty application

If the application Samhoo product warranty service, you must provide a valid Samhoo product warranty card or valid purchase invoice originals as evidence; the warranty period, related markers Samhoo products, including the serial number label, should be clear and complete and shall not break.

- Product warranty card is full warranty is filled in by Samhoo or Samhoo authorized dealers and stamped card. The warranty card to fill in the content should include the product name, product serial number (number), to buy the product date, sales units and effective information;
- 2) Valid purchase invoice is refers to the tax departments producer invoices, is an important document products sold. The invoice shall fill in the product name, product serial number (number), the date of sale, the purchase amount of effective information.

3. This warranty does not include the following contents:

- 1) Beyond the warranty period;
- Failure or not according to the specifications use, maintenance and maintenance caused by;
- 3) The failure or damage resulting from the use of this product is non normal and abnormal conditions;
- 4) Not authorized by Samhoo transformation, alteration, demolition, the use of nonoriginal accessories or battery, with or without Samhoo permission on product upgrading the software, firmware and failure or damage caused by the dynamic etc.;
- 5) Non material or processing problems caused by antenna malfunction or damage;
- 6) Host the Samhoo marks or serial number label is torn, the serial number be erased or unidentifiable products;

- 7) The date of purchase cannot be identified product;
- 8) No failure or damage caused by the force majeure;
- 9) Normal and normal wear;
- 10) The following case battery:
 - a. Battery shell sealing any man-made damage or unsealed phenomenon;
 - b. In the product beyond the provisions of equipment or maintenance conditions, fault or damage caused by charging or use.

Special instructions.:

- To the extent permitted by law, bear the responsibility of Samhoo in any case not
 to exceed product purchase price of loss, and no loss of use, loss of time, loss of
 business, profit or loss of income, can not use products as a result of incidental,
 special or following the primary damage responsibility.
- Because of the environment, the system used in the products of each are not identical, coverage, Samhoo is not in the warranty coverage area or the whole system running status of responsibility.
- 3. This repair is on the basis of relevant state provisions warranty regulations, because the technology development and market adjustment and other factors, in terms of the content will also be amended accordingly, specific modification notice repair terms please Samhoo Customer Service Center released shall prevail. Other matters please refer to the relevant national regulations shall prevail.

Appendix Input Method

You can enter aliases, numbers or messages using the keypad. This terminal supports these input methods: Simplified Chinese Pinyin (拼), English (ABC/abc) and Number (123).

■ Switch of Input Method

symbol will appear on top right corner of the screen;

■ Simplified Chinese Pinyin

- 1. Press the number keys are input Pinyin letters, L C D display alternative Chinese characters and the corresponding alternative spelling;
- 2. According to up / down keys to select the required phonetic alphabet;
- 3. Press the button to confirm the highlight Chinese Chinese characters, then press the [up] / [down] button to select the desired Chinese characters;
- 4. Press the button to confirm the selected Chinese characters input.

Switch between Uppercase and Lowercase

In input mode, press # to switch to your desired input method. All English letters are distributed among 8 alphanumeric keys. Press appropriate key repeatedly to get and enter your desired letter

■ Number

When the input method is switched to Number, press appropriate key to enter your desired number.

■ Punctuation

In Simplified Chinese Pinyin/English mode, press 1!< to enter your desired punctuations; while in Number mode, it is not allowed to enter any punctuation.

■ Space

In English/Number mode, long press to enter a space, and short press it to enter "*":

To enter a space in Simplified Chinese Pinyin mode, press 1: and then select the space (the first one).

Note: short press **Back** key to delete the entered character one by one, or long press it to delete all entered characters at a time.

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;

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:

Your radio radiates measurable RF energy only while it is transmitting (during talking), not when it is receiving (listening) or in standby mode.

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.

FCC Statement

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

The interference by one or more of the following measures:

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

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

Note:" Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment."

Compliance with RF Exposure Standards

Samhoo's 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 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

RF Exposure Compliance and Control Guidelines and

Operating Instructions

To control your exposure and ensure compliance with the occupational/controlled environment exposure limits always adhere to the following procedures.

Guidelines:

- Do not remove the RF Exposure Label from the device.
- User awareness instructions should accompany device when transferred to other users.
- Do not use this device if the operational requirements described herein are not met. 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 Samhoo's approved clip, holder, holster, case, or body harness for this product. Using approved body-worn accessories is important because the use of Samhoo's 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 manufacturer's name 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.

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