

SHENZHEN SAMHOO SCI & TECH CO.,LTD.

**Samhoo**



**»» ST3 Digital Commercial Radio**

**OWNER'S MANUAL**

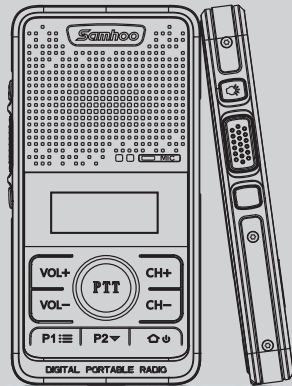


## Dear customers:

Thanks for your favor in our product. This manual is helpful for you to quickly know how to use the product.

This manual applies to the following product:  
ST3 commercial radio.

### ST3 commercial radio.



## Disclaimer

Samhoo endeavors to achieve the accuracy and completeness of this manual, but with regard to all the possible mistakes and omissions, Samhoo does not undertake any responsibility. All the specifications and designs are subject to change without notice due to continuous technological development. No part of this manual may be copied, modified, translated, or distributed in any manner without the authorized written permission of Samhoo. If you have any suggestions or would like to know more details, please visit our web site:<http://www.samhoo-pmr.com> or dial service hotline: 0086-755 8316 0260.

## Radio Frequency Radiation Information

### Safety of Radio Frequency Radiation

In order to ensure the users' physical and mental health, the experts and related organizations including science, engineering, medicine, health, and industry jointly draw up the standards and guidelines of radio frequency radiation. As follows:

- United States Federal Communications Commission, Code of Federal Regulations; 47 volume 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 Edition
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998

### The supervision requirements of Federal Communications Commission

According to the supervision requirements of Federal Communications Commission, this product must comply with radio frequency radiation limits of the Federal Communications Commission, otherwise, it is not allowed to sell on American market. The manufacturers are required to inform the users of the matters that need to be paid attention to by the way of posting label on the product, in order to improve the user's awareness of radiation protection.

## Control and operation of radio frequency radiation

In order to derive the optimum performance of the radio and ensure the compliance with the standards of the professional or controlled environment radiation limit requirements, user should transmit not more than 50% of the time and always adhere to the following procedures:

- RF energy will be generated only when the radio is transmitting.
- The radio must be 2.5 centimeters away from human body when transmitting.

## Icon Illustration

The following icons are available through this manual:

- △ Attention: Indicates situations that could cause damage to your radio.
- 📌 Note: Indicates tips that can help you make better understanding and use of your radio.
- \* Asterisk: Indicates the currently restricted function.

## Term Explanations

### Key Operation

Short press: To press the key and release it quickly.

Long press: To press the key and remain holding it down at least about a period of 1.5 seconds.

Hold down: To press the key and remain holding it down.

# Content

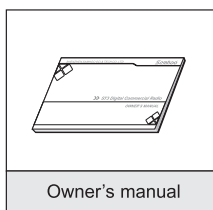
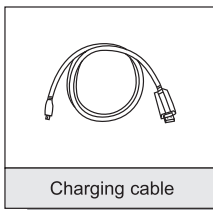
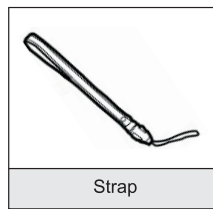
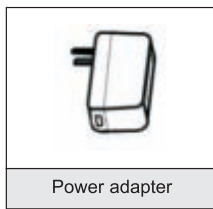
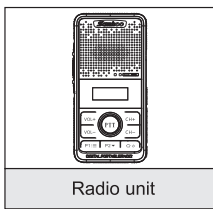
---


1. Package List.....	1	7.1 Digital Channel Calling.....	7
2. Product Overview.....	2	7.2 Analog Channel Calling.....	8
3. Before Use.....	3	8. Functions and Operations.....	9
3.1 Assembly of the Radio.....	3	8.1 Standby Interface.....	9
3.1.1 Battery.....	3	8.2 Contacts Administration.....	9
3.1.2 Attaching the Earphone.....	3	8.3 Zone.....	9
3.2 Charging Descriptions.....	3	8.4 Scan.....	10
4. Status Indications.....	4	8.6 Setting.....	10
4.1 LCD Icons Illustration.....	4	8.7 Time Out Timer(TOT) .....	11
4.2 LED Indicator.....	4	8.8 Transmission Management.....	11
5. Menu Navigation.....	5	9. Troubleshooting.....	12
6. Basic Operations.....	5	10. Care and Cleaning.....	13
6.1 Turning On/Off.....	5	11. Optional Accessories .....	13
6.2 Adjusting the Volume.....	6	12. Quality Assurance and Maintenance Terms.....	14
6.3 Selecting a Channel.....	6	12.1 Warranty Range and Duration.....	14
6.4 Locking/Unlocking the Keypad.....	7	12.2 Warranty Descriptions.....	14
6.5 Flashlight.....	7	12.3 Special Descriptions.....	15
7. Call Services.....	7		

## Package List

---

The package is included with the following items. Please check carefully and if any of the items is missing or damaged, please contact your dealer.

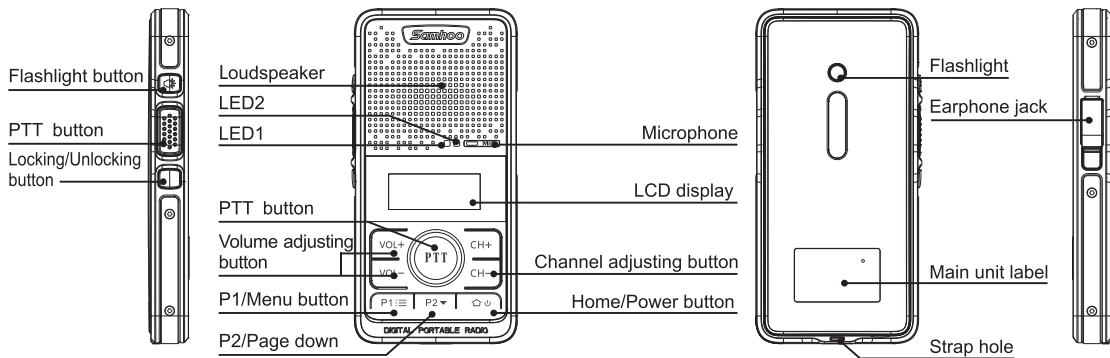


 Note: If without special notice, the package does not include the belt clip and earphone. If you need to know more information about the optional accessories, please contact us.

# Product Overview

---

## Production Controls



## Parameter Configuration

For enhanced convenience and satisfy needs, You could use the programming software to configure the parameters of the digital radios, such as the communication scheme, channels, ID number, contacts, etc. For more information, please contact your dealers.

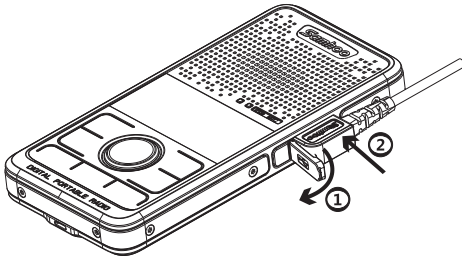
## Before Use

### Assembly of the Radio

#### ■ Battery

The battery is built-in and it could not be disassembled.

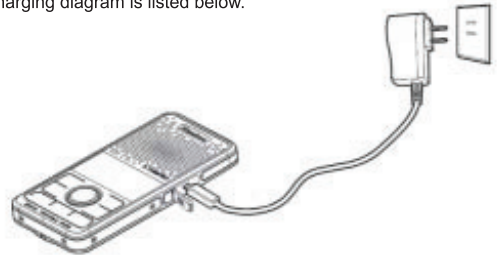
#### ■ Attaching the Earphone




1. Open the earphone lid following the direction as graph 1 indicates.
2. Insert the earphone plug following the direction as graph 2 indicates.

### Charging Descriptions

Please use the charger specified by Samhoo to charge the battery, charging diagram is listed below.



1. Link the charger to the alternating current power socket and digital terminal USB jack.
2. LED1 turns red indicates charging begins.
3. LED1 turns green indicates charging complete.
















 Notes: the standard 1500mAh battery needs 2 to 3 hours of charging and for optimal battery performance, please charge it for 3 hours at the first time.



# Status Indications

## LCD Icons Illustration

The LCD display could show the terminal's status, text and menu item. The following are the icons of the terminal shows on standby interface.

Icon name	Icon	Terminal status
Battery		Low Battery
	  	More bars indicate more battery power
		No signal
Signal	    	More bars indicate better signal coverage
		Current is analog channel
Channel Type		Current is digital channel
		An accessory is connected.
Calling Status		Indicates that currently it is on the call
Switching Channel Icon		Indicates that it is switching channel

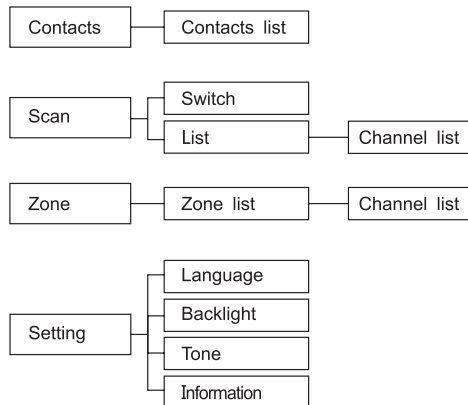
## LED Indicator

The front of the terminal has two LED indicator lights: LED1 and LED2, indicating the current operation status.

Terminal status	Indicator light status
Transmitting the call	LED2 glows red
Receiving the call	LED2 glows green
Standby mode	LED2 off
Call holding	LED2 glows green
Charging	LED1 glows red
Battery is fully charged	LED1 glows green

## Menu Navigation

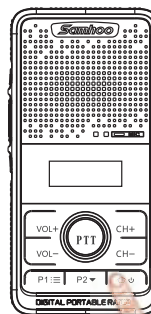
The menu structure of this product is as below:



## Basic Operations

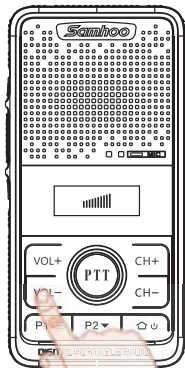
### Turning On/Off

Long press [Home/Power] button to turn on/off the radio.



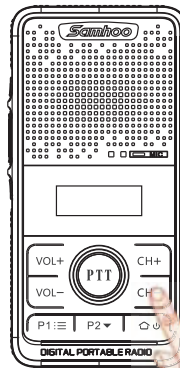
## Adjusting the Volume

Short press [VOL+] or [VOL-] button to increase or decrease the volume.



## Switching a Channel

Short press [CH+] or [CH-] button to switch the channel.



---

## Locking/Unlocking the Keypad

Short press [**Locking/Unlocking**] button and it would pop out the locking icon and then the keypad is locked, at this time if you press any other keys except the PTT button, it would all pop out the locking icon reminding you that the keypad is locked.

And then short press [**locking/Unlocking**] button, it would pop out the unlocking icon to indicate that keypad has been unlocked and it turns back to normal mode.

## Flashlight

The radio provides lighting function by flashlight on the backside.

Press the [**Flashlight**] button to turn on/off the light and lighting is not more than 30 seconds.

---

## Call Services

After turning on the radio, you could realize three kinds of calling.

- Individual call: initiate call to a certain individual.
- Group call: initiate call to all users in a group.
- All call: initiate call to all users in the same channel.

In order to guarantee the optimal receiving volume, please keep a 2.5 to 5 centimeters distance between the microphone and the mouth.



## Digital Channel Calling



You can realize individual call, group call and all call through the same operations on digital channel. (Can be programmed by your dealer).


Here is an individual call example to illustrate the call process:

- Call through preset contacts

You may ask your dealer to preset a regular individual call, group call or all call contact for each digital channel.

- 1) A and B select the same digital channel and the "TX contacts" of A is preset to be terminal ID of B.
- 2) A presses [**PTT**] button to initiate a call, LED2 glows red and LCD shows the individual call icon , calling out icon  and the terminal ID of B.

3) B receives the call from A and it shows the individual call icon , incoming call icon  and the terminal ID of A. The loudspeaker transmits the calling voice from A, meanwhile LED2 glows green.

4) A releases **[PTT]** button, A and B enters call holding mode, LED2 glows green for both terminals, LCD shows the individual call icon  and countdown. Before the countdown ends, B could press **[PTT]** button to respond.



#### ● Call through contact list


You could add at most 6 contacts in the contacts module via the dealers, and these contacts could be preset as individual call, group call or all call.


1) A and B select the same digital channel, Terminal ID of B has been saved in the contacts module of A.


2) A enters in the contacts list of the contacts module.


3) Press **[P2/Page down]** button to select contact B.

4) A presses the **[PTT]** button to initiate a call, LED2 glows red, LCD shows the individual call icon  calling out icon  and terminal ID of B.


5) B receives the call from A, and it shows the individual call icon .

incoming call icon  and terminal ID of A. The loudspeaker transmits the calling voice from A, meanwhile LED2 glows green.

6) A releases **[PTT]** button, A and B enters call holding mode, LED2 glows green for both terminals and LCD shows the individual call icon  and countdown. Before the countdown ends, B could press **[PTT]** button to respond.

 Notes: The countdown on call holding interface is set by the dealer. During call holding period, both sides could press the **[PTT]** button to talk. If no one press **[PTT]** button to talk, call will end automatically.

## Analog Channel Calling

In the analog channel there are no transmitting contacts related to the channel, so the calling subjects are all the users in this channel. The analog calling does not show calling interface. During the calling, it only shows  icon on the status bar, indicating the calling is in progress; and when caller releases the **[PTT]** button, call ends.

# Functions and Operations

---

## Standby Interface

After turning on the radio, it shows the standby interface, or in any other interface, press **[Home/Power]** button to exit the current interface and directly return to standby interface:



In this interface, press **[P1/Menu]** button to show menu list, then press **[P2/Page down]** button to switch among contacts, scan, zone, settings.

## Contacts Administration

Entering “contacts” module and it shows the contacts list.



Press **[P2/Page down]** button to select different contacts; press **[PTT]** button to initiate the call.

## Zone

Zone is a channel group, and you could divide the channels of the same property in the same zone for convenient management.

This terminal could support at most 2 zones and each zone includes no more than 16 channels. You could select different zones and its channels through the “zone” module.

Entering the “zone” module, it shows the zone list:



Press **[P2/page down]** button to select different zones, and then press **[P1/Menu]** button, it shows the channel list in the selected zone:



Press **[P2/page down]** button to select channels, and then press **[P1/Menu]** button to set the selected channel to be the current channel.

## Scan

Scanning function could help you to listen the communication activities in other channels, so as to know about the current activities of the related users.


### Operating Method:

Enters "scan" module.

Enters "Switch" menu, opens or closes the scanning function.

When it on, the radio could scan channels in scan list that related to current channel. The process is as below:

- 1) When scanning, LED2 flash red quickly.
- 2) When it has scanned certain activities in a certain channel, the radio would stay in the channel to listen.

 Notes: If this channel hasn't established a scanning list, it would not realize scan function. Entering in the "scan list" menu, you could check the channels in the scanning list.

## Settings

You can optimize performance of your radio via the following configuration according to your actual needs and preferences.

### 1) Language

- When you select Chinese, all interface show in Chinese.
- When you select English, all interface show in English.

### 2) Backlight

Setup backlight delay function to save the battery.

- Set it on, the backlight would turn off without Operation in 15 seconds.
- Set it off, the backlight would be on all the time.

### 3) Tone

- Set it on, the setting of Key pressing ,calling and functional modification will have warning tone.
- Set it off, the setting of Key pressing ,calling and functional modification will not have warning tone.

### 4) Squelch

- When the setting is 0, the squelch is on.
- When the setting is 1, less noise received.

## 5) Information

For check the related information of the radio which includes: BAND, ISSI, Ver, ID.

### **Time out Timer(TOT)**

The feature is to prevent you from occupying a channel for an extended period. If the TX time (Preset by dealer) expires, the radio will automatically terminate transmission and keep beeping. To stop beeping, please release [PTT] button. You must wait for a certain time period before you can press and hold down [PTT] button to transmit again.

### **Transmission Management**

This function could be set up by the programming software; it could be used to set up the transmitting prerequisites of the established channels. The terminal complies with the transmitting prerequisites, and you should press the [PTT] button to realize this transmission; otherwise, it is unable to initiate transmission.

TX Admit on digital channel includes the followings:

- Allowing transmission: You can press down the [PTT] button to

transmit all the time, whether the channel is being interfered or not.

- Channel Free: The radio is allowed to transmit when the channel is not being interfered.

- Color Code Free: The radio can transmit only when the channel is not being interfered or the color code is not matched.

TX Admit on analog channel includes the followings :

- Allowing transmission: You can hold down the PTT key to transmit all the time, whether the channel is being interfered or not.

- Channel Free: The radio is allowed to transmit when the channel is not being interfered.

- CTCSS/CDCSS match: The radio is allowed to transmit when CTCSS/CDCSS is matched.

- CTCSS/CDCSS mismatch: The radio is allowed to transmit when CTCSS/CDCSS is mismatched.



## Troubleshooting

If the solutions below cannot fix the problems, or there are other questions, please contact us or your local dealer for more technical support.

Phenomena	Analysis	Solutions
Power-on Failure	The battery power might be too low.	Charge the battery.
	The battery may be poorly connected due to dirtied or damaged battery contacts	Clean the battery contacts. If the problem cannot be solved, contact your dealer or authorized service center for inspection and repair.
Unable to communicate with other members.	The frequency or signaling may not match that of other members.	Set your TX/RX frequency and signaling to the same as that of other members.
	The channel type (digital/analog) may be set inconsistently.	Make sure all members are on the same digital/analog channel.
	You may be too far away from other members.	Move towards other members.
During receiving, the voice is weak, discontinuous or totally inactive.	The volume level may be low.	Increase the volume.
	The speaker may be blocked or damaged.	Clean the surface of the speaker. If the problem cannot be solved, contact your dealer or authorized service center for inspection and repair.
Irrelevant communication or noise is heard on the channel.	You may be interrupted by radios using the same frequency.	Change the channel frequency, or adjust the squelch level, or add the CTCSS encryption (in analog mode).
	You may be too far away from other members.	Move towards other members.
The transmitting is ended.	The transmitting time is too long because of the TOT.	
Dropped call	Maybe you're in the basement, tunnel or somewhere the signal might be bad or be blockaded by the high buildings.	Move to a spacious zone and call again.
	You may be too far away from other members.	Move towards other members.
	It subjects to the interference of the other parties.	Keep away from the equipment that might cause interference.

## Care and Cleaning

---

In order to guarantee optimal performance as well as a long serving time of the radio, please get familiar with the following contents for a good daily maintenance and cleaning of the radio.

### Maintenance

- Keep the radios far away from environment containing corrosion of electronic circuits so as to avoid electronic components damaging or shorten the life.
- Attach the accessory connector cover when the accessory is not in use.

### Cleaning

- Please clean up the dust and fine particles on the radio surface and charging piece with a clean and dry lint-free cloth or a little brush so as to keep it clean and avoid poor contact.
- Use neutral cleanser and a non-woven fabric to clean the keys, control knobs, display and front case after long-time use. Do not use strong corrosive chemical preparations such as stain removers, alcohol, sprays or oil preparations, so as to avoid surface case

damage. Make sure that the radio is completely dry before the cleaning.

△ Attention: Turn off the radio before cleaning.

## Optional Accessories



📞 Notes: For more information, please feel free to contact us.

## Quality Assurance and Maintenance Terms


---

SHENZHEN SAMHOO SCI & TECH CO., LTD (hereinafter referred to as Samhoo) promises that if the radios produced by Samhoo, since the date of purchase, under the condition of normal use, operation and maintenance, has defects in the material or manufacturing technology, the clients will get the following warranty service.

### Warranty Range and Duration

The radio: 12 months.

The standard accessories: 6 months.

 Notes: Due to the fact that battery is built-in, the warranty duration for the battery is 6 months.

### Warranty Descriptions:

If you apply for the warranty services of Samhoo products, please provide a valid warranty card or the original invoice. During the warranty period, the related marks of Samhoo products, such as the serial number, should be maintained clear and complete and not be torn up.

1 ) The warranty card should be completely filled in and stamped

by Samhoo or the authorized dealers. The contents on the warranty card should include the product name, manufacturing serial number, date of purchase, marketing unit and so on.

2 ) The effective invoice should be supervised by the fiscal and taxation departments and it is an important voucher. The filling content on the invoice should include the product name, manufacturing serial number, date of purchase, amount of purchase and so on.

### Attention:

● This product must be sent back to the headquarters of the service center or our overseas service station for the repair.

● Please pack the product well with the required documents and detailed description of malfunction and send to the after-sales service center of our company or the designated service stations. You can also get assist by dial our service hotline: 400-086-3733.

● The terms of this service do not include the following contents:

1 ) Beyond the valid period of warranty.

2 ) The malfunction or damage is caused by the usage or maintenance

which are not following to the specification.

- 3 ) The malfunction or damage is caused by the abnormal or unconventional use.
- 4 ) The malfunction or damage is caused by the modification, change, removal, using non-original accessories or batteries, or upgrading the software and removing firmware without Samhoo's authorization.
- 5 ) The fault or damage to the antenna is not caused by the materials or processing methods.
- 6 ) The related marks on the radio are torn up or erased, the serial number can't be identified.
- 7 ) The purchase date of products can't be identified.
- 8 ) The malfunction or damage caused by the force majeure.
- 9 ) The normal abrasion.
- 10 ) The battery with following circumstance:
  - a. Artificially damaged or opened.
  - b. The fault or the damage caused by charging the battery or the usage beyond the instruments and maintenance conditions specified.

### **Special Descriptions:**

1. Within the limits of law, in any case, Samhoo has no liability for the loss that is more than the purchase price of the product, meanwhile, Samhoo is not liable for any loss of use, time, business, profits or income, and the incidental, special or secondary damage.
2. Since the environment or system of the using the product are different, Samhoo is not responsible for the coverage area of the whole system or the operation conditions.
3. The maintenance clauses are enacted in accordance with relevant national warranty regulations. Due to the technical development and market adjustment, the clauses will be changed accordingly. The specific changes are subject to Change Notice issued by Samhoo customer service center. For any other matters that are not mentioned here, it will be subject to relevant national regulations.

# Samhoo

SHENZHEN SAMHOO SCI & TECH CO.,LTD.



## » SHENZHEN SAMHOO SCI & TECH CO.,LTD.

**Address:** Huaqiangyun Industrial Park, No.1-1 Meixiu Road,  
Meilin Industrial Park, Futian Distric, Shenzhen, China.

**Service hotline:** 0086-755 8316 0260

**Postcode:** 518049

**Website:** [www.samhoo-pmr.com](http://www.samhoo-pmr.com)

## *Samhoo*

is registered trademark of SHENZHEN SAMHOO SCI & TECH CO.,LTD  
and is under authorized use.

© Copyright 2013 SHENZHEN SAMHOO SCI & TECH CO.,LTD All  
rights reserved.



**ISO9001:2008&ISO14001:2004**