SHENZHEN SAMHOO SCI & TECH CO.,LTD.

Samhoo

SPM6000 SERIES
OWNER'S MANUAL

Digital Trunking Mobile Terminal

www.samhoo-pmr.com

Samhoo

Dear customers:

Thank you very much for your favor in our products! In order to get optimal performance from the product, please read this manual carefully before using it.

This manual applies to the following models:
SPM6015, SPM6035, SPM6040, SPM6050 mobile terminals etc.

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 understangding and use of your radio.

✻ Asterisk: Indicates the currently restricted function.

Term Explanation

Key operation

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

Long press: To press the key and remain holding it down more than a period of 1.5 seconds.

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

Individual Call

Individual call is a call initiated by one user to another user.

Group Call

Group call is a call initiated by a user to all users in a group.

Emergency Call

Emergency call is the highest priority call. And you can ask companions or emergency control center for help when you are in emergency. It's can interrupt non-emergency calls if starting the emergency call.

Conventional Mode

In conventional mode, between the terminals, they can proceed to use simplex communication, which is not limited to the network, but users can't use the functions that need the network.

Trunking Mode

In trunking mode, the terminals communicate via the base station, and users can use the functions that need the base station supporting. If you need to operate in the trunking mode, at first, you must register to the base station to obtain the permission of the service provider, and the terminals should be kept under network coverage.

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If you have any suggestions or would like to learn 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 from 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; 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 Edition
- International Commission on Non-Ionizing Radiation Protec-tion (ICNIRP) 1998

The supervision requirements of Federal Communications Commission

According to the supervision requirements of Federal Com-munications 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 user of the matters needing 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:

- The antenna gain must not exceed 5dBi (UHF) and 3.5 dBi (VHF).
- Antenna installation is required to follow with the requirements of the manufacturer or supplier. And the distance between the installation site and the human body should keep at least 80cm distance.

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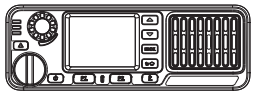
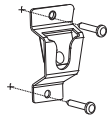
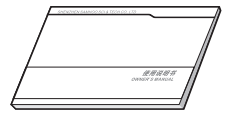
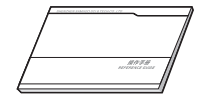
Pcking List

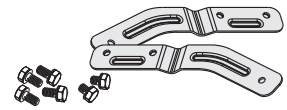
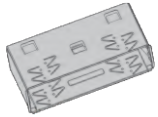
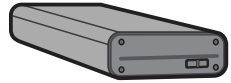
The package includes the following items. If any item is missing or damaged,please contact your dealer.

		
Radio Unit	Handheld Microphoe	Microphone Hanger and Screws
		
DC Power Cable	Owner's Manual	Quick Reference User Guide

Note: Standard config for mobile terminal with trunking function is digital keyboard and handhold microphone, while for conventional function is normal handhold microphone.

Optional Accessories

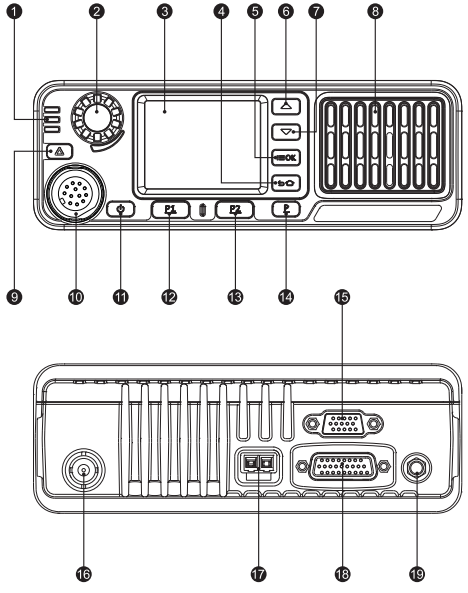
The following items are the main optional accessories of the product, if you need more information about the accessories, please consult your local dealer.

		
Handheld Microphone with Numeric Keypad	U-shaped Bracket	Bracket
		
Mobile Terminal Support Kit	Reserve Power Supply	Data Cable
Omni's Directional Antenna		

Note: For more details about the accessories, please contact our company.

Product Overview

Introduction of Parts



No.	Part Name	No.	Part Name
1	LED Indicator	2	Volume Control / Channel Selector Knob
3	LCD Display	4	Option / Back / Home Button
5	Menu / Enter Button	6	Up Button
7	Down Button	8	Speaker
9	Emergency Call Buttom	10	Handheld microphone interface
11	Power On / Off / On-hook button	12	Enter / P1 Key
13	Cancel / P2 Button	14	Power Level / Lock / Unlock button
15	Accessories Interface	16	RF Antenna Base
17	Power Interface	18	Accessories Interface
19	Positioning Module Antenna Interface		

Installation

Precautions

Before installing the mobile terminal, please read the following precautions carefully:

- The radio operates with cathode-grounded power supply of 13.6V ± 15% only. Please check polarity and voltage of the power supply on the vehicle before you install the radio.
- Please check how long the screws will extend from the bot-tom surface of the radio, before you install the radio. Drill the mounting hole cautiously to avoid damage to the vehicle wiring and other parts.
- Please connect Samhoo supplied antenna and power cord to the radio, before you install it in the bracket. And make sure the antenna and power cord is dedicated for Samhoo digital radios to prevent injuries to passengers.
- Set the mobile terminal in a location convenient on the front panel for easy operation.
- Please make sure there's sufficient space at back of the radio for wiring.
- When the fuse for DC power cord needs replacement, it must be replaced by a fuse with the same specification.

Installation Tools

- Electric Drill
- Cross Head Screwdriver
- Hex Socket Sleeve

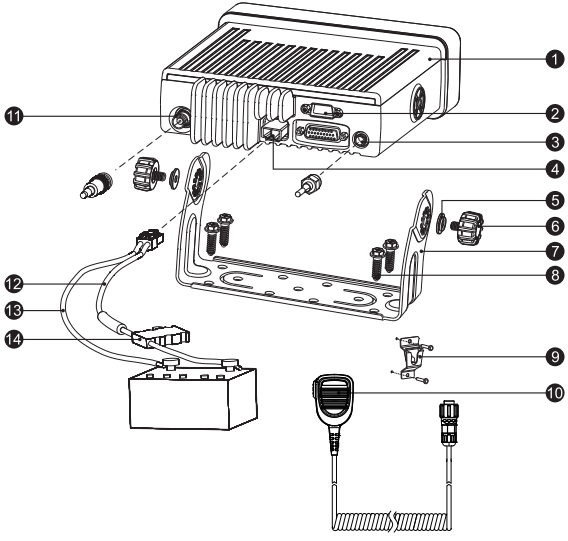
Installation Steps

Install the radio as instructed below:

1. Install the bracket in a location where it's easy to operate the radio.
2. Connect accessories such as antenna and power cord to the radio.
3. Slide the radio into the mounting bracket and fix by using the locking knobs.
4. Install the microphone hanger in a convenience location.
5. Plug the handheld microphone into the microphone jack on the front panel. Place the handheld microphone on the hanger when you do not use it.

Installation Diagram

The installation of this product is shown as below:



A. Install the bracket 7 with cross screw 8 in a proper position.

B. Connect the accessories such as the radio antenna and power cord to the mobile 1.

C. Slide the mobile radio 1 into the mounting bracket 7 and fix it with cross screw 6.

D. Install the microphone hanger 9 in a location where it's easy to reach the microphone.

E. Plug the handheld microphone 10 into the microphone jack on the front pannel of mobile radio 1 and place it on the hanger when you don't use it.

Number	Name of Parts	Number	Name of Parts
1	Mobile Radio	2	Accessory Interface
3	Positioning Module Antenna Interface	4	Power Supply Socket
5	Hardware Bracket knob underlay	6	Hardware Bracket knob
7	U-shaped Bracket	8	M6 Self-tapping Cross Screw
9	Handheld Microphone Hanger	10	Handheld Microphone
11	RF Antenna Base	12	Red Power Line
13	Black Power Line	14	Fuse

Status Indication

LCD Icon

These icons may appear on LCD to help you easily identify the radio status.

Icon Name	Icon	Radio Status
RSSI		No signal.
		More bars indicate better signal strength.
Message Icon		New message/unread message.
		InBox is full.
Working Mode Icon		Indicates in conventional mode.
		Indicates in trunking mode.
Power Level Icon		Indicates low-power transmission.
		Indicates mid-power transmission.
		Indicates high-power transmission.
Profiles Icon		Indicates the standard mode is enabled.
		Indicates the silenced mode is enabled.
		Indicates the custom mode is enabled.
Accessory Icon		Indicates the accessory is plugged in.
Handheld Microphone Icon		Indicates the handheld microphone is plugged in.
Call Status Icon		Indicates currently is talking.
		Indicates missed calls.

Channel / Group Selection Icon		Indicates in channel selection mode
Positioning Icon		The positioning feature is active, and valid positioning data is received.
		The positioning feature is active, but no valid positioning data is received.

LED Indicator

The LED indicator will help you easily identify the current radio status.

LED Indication	Radio Status
LED glows red	Transmitting
LED glows green	Receiving
LED glows green and flashing slowly.	Standby

Basic Operations

Turning the Radio On / Off

Short press **[Power On / Off / On-hook]** button to turn on the radio, LCD displays power-up LOGO, and then enter the standby screen, and then long press **[Power On / Off / On-hook]** button to shutdown.

Note: If a fault occurs and the radio does not turn off, you can press and hold the **[Power On / Off / On-hook]** button for more than 10 seconds with the forced shutdown and restart it.

Knob Switch Mode

Short press the knob ,to switch the two modes between volume and channel / group.

Radio Mode

The mobile terminal supports conventional and trunking mode, switching as below:

1. Press **[Option / Back / Home]** button to bring up the option menu;
2. Press **[Up] / [Down]** button to select 'Radio mode' and press **[Menu / Enter]** button to enter the list of radio mode;
3. Press **[Up] / [Down]** button to select 'Conventional' or 'Trunking' mode, press **[Menu / Enter]** button to switch modes.

Note: In conventional mode the radio can communicate directly or via repeater inter-communicate; in trunking mode, the mobile terminal is connected by the base station, to realize the fuction of real-time dispatchment.

Adjusting the Volume

When the Volume Control / Channel Selector knob operates in volume adjustment mode, rotate the knob clockwise to increase the call volume, or counterclockwise to decrease volume.

Adjusting the Power Level

Press **[Power Level / Lock / Unlock]** button to change the transmitting power level to 'High / Mid / Low', and also the icon of the power level will be changed in the main menu.

Lock and Unlock

Long press **[Power Level / Lock / Unlock]** button can activating the keylock function, in case of wrong operation. Deactivate the keylock by long.

Switching Channel / Group

When in the channel / group switching mode, turn the knob to select channel / group.

In addition you can also switch the channel/group in the menu:

1. Press **[Option / Back / Home]** button to go to the 'Option' menu.
2. Press **[Up / Down]** button to select 'Channel Management / Group Management', press **[Enter]** to enter the channel / group folder list.
3. Press **[Up] / [Down]** button to select the channel / group folder, press **[Enter]** to enter the channel / group list.

4. Press **[Up] / [Down]** button to select the channel / group, press **[Enter]** button to switch channel / group.

Note:

- ‘Channel Management’ and ‘Group Management’ are folders set up for classified management of channels and groups in conventional mode and trunking mode.
- This mobile terminal supports up to 64 channels / group folders, each folder contains up to 100 channels / groups, and please set it up via the dealer.

Call

Individual Call

■ Initiate the Individual Call

1. Input a individual call number you would like to call using the mircophone with a keypad , or enter ‘Phonebook’ / ‘Call Log’ / ‘Messages’, to select the Contact / Messages;
2. Hold down the **[PTT]** button on the handheld microphone to transmit a individual call to the selected contact or message contact.

■ Receive and Call back

1. When the **[PTT]** button is idle ,without any actions of buttons ,the mobile radio could receive call.
2. You can hold down **[PTT]** button to call back after the calling party finish talking.

Group Call

The groups are preset by the dealer, operating method in conventional and trunking modes is the same.

■ Initiate group call

1. At standby screen, short press **[Volume Control / Channel Selector]** button, then rotate to select channel / group that willing to call.
2. Press **[Enter]** button to confirm the selected channel / group, or wait for it confirm automatically.
3. Hold down **[PTT]** button on handheld microphone to initiate group call.

■ Receive and Call back

1. When **[PTT]** button is idle ,without any actions of buttons ,the mobile radio could receive call.
2. You can hold down **[PTT]** button to call back after the calling party finish talking.

Telephone Call (Only in trunking mode)

The mobile terminal can be used to call the public telephone, provided the base station has realized a gateway interconnection between the intercom systems and telephone networks, for more related information, please contact your service provider.

■ Initiate telephone call

1. In trunking mode, input the gateway number and phone number through a handheld microphone with numeric keypad.
2. Press **[PTT]** button to initiate a call, there will be a waiting tone after connected, please wait for the response of called party .
3. When the called party receive the call ,you will hear its talk automatically, you must hold down **[PTT]** button to call back during the call.

■ Receive Telephone Call and Call back

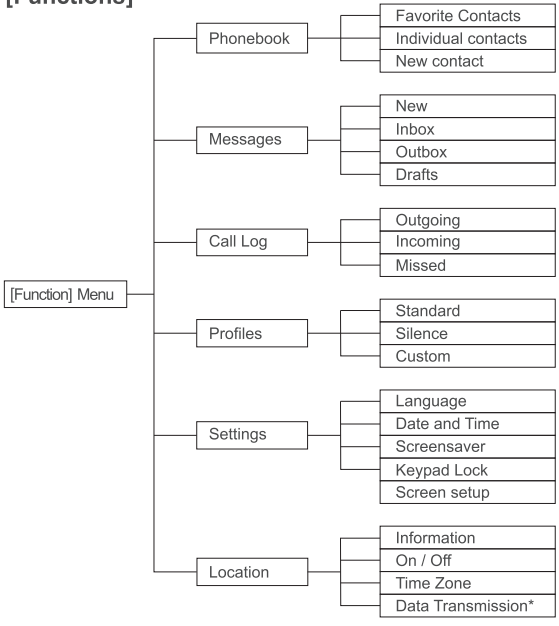
Receive a telephone call in trunking mode is consistent with the process of receiving a normal call. For call back, hold down **[PTT]** button on the handheld microphone and speak to the microphone; release the **[PTT]** button, the phone call is automatically re-entered.

Emergency Call

Long press **[Emergency Call]** button to initiate an emergency call.

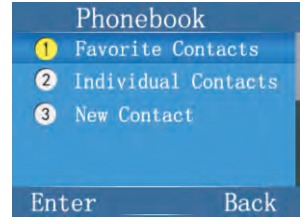
Menu Navigation

[Functions]



Phonebook

Phonebook is used to store contact information, press **[Menu / Enter]** button to open menu, press **[Up]** / **[Down]** button to select 'Phonebook', Press **[Menu / Enter]** button to get into it.



Phonebook includes three modules: Favorite Contacts, Individual Contacts, and New Contacts.

■ Favorite contacts

Save the individual contacts and group contacts that are frequently used, it could realize the following functions:

- ●Contact Add: Add the individual contacts and group contacts to your favorite contacts, for ease of use;
- ●Message: send message to the selected contacts;
- ●View: View the name and number of the contact;
- ●Contact Edit: Edit the name and number of the contact and save them;

●Delete: Delete a contact;
●Delete all: Delete all contacts.
●Call: Press the **[PTT]** button to call the selected contacter.

■ Individual contacts

Save individual contacts, you can save up to 500 contacts; it could perform the same functions with favorite contracts:

●Message: send a message to the selected contact;
●View: view the name and number of the contact;
●Contact Edit: Edit the name and number of the contact and save;
●Delete: Delete a contact;
●Delete all: Delete all the contact information
●Call: Press **[PTT]** button to call the selected contact (or contacter ?)

■ New contacts

You can manually edit name and number of contact (or contacter ?) and save it in 'individual contacts'.

Note:

●In addition to functions such as 'Contact Add' and 'Call', you have to select contacts in 'Favorite Contacts' or 'Individual Contacts', then press **[Menu / Enter]** button to use other functions.
●How to make call: Select a contact (or contacter?) in 'Favorite contacts' or 'Individual contacts',hold down **[PTT]** button to initiate the call to contact (or contacter?).
●Handheld microphone with keypad is required for 'New Contact' and 'Contact Edit', in the editing process, press **[#]** button on the keypad to switch input methods.

Messages

The mobile terminal can edit, send, and receive messages.

■ Edit and send message

1. At standby interface, press **[Menu / Enter]** button to open the menu, press **[Up]** / **[Down]** button to select 'Message', press **[Menu / Enter]** button to get into it.

2. Select ‘New’ and press **[Menu / Enter]** button to enter message type selection interface.

3. Press **[Up]** / **[Down]** button to select ‘Status Message’ or ‘User Message’ and then press **[Menu / Enter]** button to enter edit message interface.

Note: ‘Status Message’ is pre-programmed by the dealer, you can only read and use it.

4. After select status message or finish editing user message, press **[Menu/Enter]** button to enter interface of recipients.

5. Input the Tel number, or select contact (or contacter?) from ‘Favorite contacts’, ‘Individual contacts’, ‘Group contacts’, then press **[Menu / Enter]** button to send message.

Receive Messages

After receiving a new message, the icon will display in the status bar. Press **[Menu / Enter]** button to read message immediately or press **[Option / Back / Home]** button to keep view later.

If the Inbox is full of unread messages, the icon will display in the status bar, then you need to clear your inbox, in order to continue receiving messages.

Inbox

The received messages are stored in the inbox, and it can store not more than 50 messages.

In the Inbox, it displays a list of messages, it could realize the following functions:

- View: View the contents of the selected message.
- Reply: Reply to the sender.
- Forward: Forwards the message to others.
- Extract Numbers: Extract the sender’s number from the message and save it in Phonebook.
- Delete: Delete the selected message.
- Delete All: Delete all messages received.
- Call: Press **[PTT]** button to call the sender.