

Thuraya SeaStar

SYSTEM USER GUIDE



Thuraya SeaStar

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REGULATORY INFORMATION

EC Declaration of Conformity

Westone Communications co. Ltd, be seated on YunHua Road No.333, Chengdu, Sichuan Province, China declares under our sole responsibility that the Product, brand name as Thuraya SeaStar and model: Is a voice/SMS/GmPRS Satellite terminal with a built in GPS tracking system, to which this declaration relates, is in conformity with the following standards and/or other normative documents:

IEC 60945/ EN 60945 edition 2008

WARNING

This equipment shall not operate when mains power is lost.

Safety Summary

For the sake of safety and protection, please read the user guide before you attempt to use the Thuraya SeaStar system. In particular, read this safety section carefully. Keep this safety information where you can refer to it if necessary.

The following general safety precautions must be observed during all phases of operation, service and repair of this equipment. Failure to comply with these precautions or with specific warnings elsewhere in this user guide violates safety standards of design, manufacture and intended use of the equipment.

Westone Communications co. Ltd, assumes no liability for the customer's failure to comply with these requirements.

Antenna Radiation Warning

During transmission, the antenna in the system radiates high power levels of radio frequency. This radiation is considered health hazardous to any personnel that comes very close to the antenna.

It is important to maintain a separation distance from the transmitting antenna to any personnel of at least 30cm.

Service

User access to the interior of the terminal is not allowed. Only qualified personnel authorized by its manufacturer may perform service. Failure to comply with this rule will result in the warranty being void.

Grounding and Antenna Cables

The terminal has a grounding stud to ground the terminal to the hull of the ship by using a ground cable.

The antenna cables are shielded and they should not be affected by any magnetic field. It is recommended to avoid the cables being installed in parallel with any AC wiring as it may possibly cause malfunction of the equipment.

Ship's Power Supply

The Thuraya SeaStar (including to the Terminal and the Active Antenna) standby power is only less than 10W, and the standard operation average power consumption is only 16W. When low signal strength, burst power may beyond 20W. For the steady operation, the input voltage for SeaStar System needs a 36W power supply (may be 12V DC@3A or 24V DC@1.5A). It is recommended to use a 24V DC power line, if available on the ship.

In case of unavailability of a 12V or 24V DC power line on the ship, on external AC/DC power supply (110/220V AC to 24V DC @ Min 1.5A) can be used, please

contact the vendor when you need it.

Equipment Ventilation

To ensure adequate cooling of the terminal, 5cm of unobstructed space must be maintained around all sides of the unit except the bottom side. The ambient temperature range of the below decks terminal is: -15°C to +55°C.

The equipment should not be operated in the presence of flammable gases or fumes as well as any explosive atmosphere. Operation of any electrical equipment in such an environment constitutes a safety hazard.

Obtaining Licensing for Thuraya SeaStar System

Under rights given under ITU Radio Regulations, local telecommunications administrations establish and enforce national rules and regulations governing types of emissions, power levels, and other parameters that affect the purity of signal, which may be radiated in the various frequency bands of the radio spectrum.

To legally operate the Thuraya SeaStar system, it is necessary to obtain permission from the local telecommunications regulatory authorities of the country you are operating from. Using your equipment in any country without permission causes you to run the risk of confiscation of the equipment by the local authorities. The normal procedure to bring such equipment into another country is to apply for a license before travel. If a license has not been obtained before travel, the equipment may be put in to storage by local authorities until such time license is obtained.

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1. INTRODUCTION

The Thuraya SeaStar is a voice satellite terminal with a built-in GPS tracking system specially designed for reliable performance in the harsh maritime environment. This affordable, easy-to-install and user-friendly terminal enables users to make satellite voice calls to normal PSTN phones, mobile phones and other satellite phones through the Thuraya satellite network.

The SeaStar supports SMS services through its easy-to-use menu on the large color LCD screen on the terminal. An Alert button is available to notify pre-configured contacts during an emergency. When the Alert button is activated, the SeaStar will send a pre-determined SOS message which includes the time-stamped GPS coordinates of the position to a maximum of five preset contacts for emergency response. The terminal has a RJ11 socket for connecting to an analogue phone or PBX. A RJ45 socket is available to provide GmPRS data via LAN cable to a laptop or PC to give access to the internet.

Features

Base Terminal

- Supports basic telephony functions, Calling Line Identification Presentation (CLIP) and Short Message Services (SMS), network function and link to circuit switch phone or PBX function.
- Phone book retrieval from the terminal, storage 3000 contacts max.
- Call log: last missed, received and dialed calls each with date and time stamps, storage 100 call log max.
- Menu-driven graphical user interface with 65K colors, 320 x 240 pixels, 2.4 inch TFT LCD screen
- MMI Language in English.

- Back-lit keypad
- Desk and wall mounting
- Alert button for triggering an emergency alert to pre-configured contacts via SMS
- External Alert button input port
- External loudspeaker plays incoming ring and SMS notification ring
- 3.5mm port is use for output the ring or voice in calling
- Configuration to support
 - Automatic Position Reports (APR)
 - Polling for an on demand position report base on GPS Tracking
 - Geo-fencing. Up to 5 areas (circular or rectangular) can be configured. Sends an SMS alert when the vessel enters or leaves an area
- RJ45 port for GmPRS LAN connection
- RJ11 port for analogue phone connection

Antenna Unit

Active Antenna

- Omni-directional active Thuraya satellite antenna with build-in active GPS antenna
- Up to 75 meters of LMR400 (or equivalent) co-axial satellite antenna cable
 - Standard cable 25m for longer cable contact supplier

Recommended Cable lengths for Active antenna

SAT & GPS Cables

Cable Type	Loss@1.6GHz (dB/m)	Max Cable Length (m)	Recommendation Cable Length (m)	Min Cable Length (m)
LMR400	0.174	75	67	52
LMR240	0.335	40	36	28
LMR195	0.493	28	25	20

Operating Environment

Antenna Unit (ADU)	
Operating Temperature	-25°C to +55°C
Storage Temperature	-40°C to +80°C

Base Terminal (BDU)	
Operating Temperature	-15°C to +55°C
Storage Temperature	-20°C to +70°C

System	
Power Supply	10.8 to 31.2V
Standby / Working Average Power Consumption	10W / 16W
Operating Humidity	Up to 95% (non-condensing) at 40°C

General specifications

Thuraya Approved

Compliant to CE, RoHS, WEEE, REACH, IEC60945

Service

Voice		
SMS	Up to 140 Characters	
GmPRS	40Kbps / 15Kbps (Download / Upload)	
Ingress Protection Rating	Base Terminal (BDU)	IP 32
	Antenna (ADU)	IP 66

GPS specifications

Number of Tracking Channels	20	
GPS Position Accuracy	<10m	
Time to First Fix	Hot start	< 1 seconds
	Warm start	< 30 seconds
	Cold start	< 35 seconds

Mechanical specifications

Size	
Base Terminal (L x W x H)	210×205×85mm
Active Antenna (D x H)	164×170mm
SAT Cable	25m
GPS Cable	25m
Weight	
Base Terminal	1.2kg
Active Antenna	1.1kg
Antenna Mounting Kit	0.5kg
SAT Feeder Line	0.67kg @ 25m
GPS Feeder Line	0.65kg @ 25m

Packing list

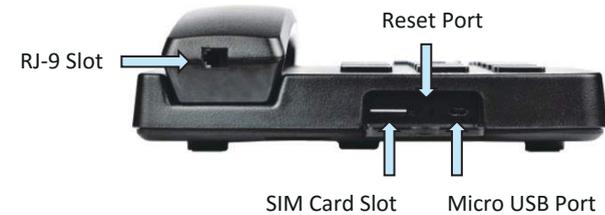
Base Terminal	
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Active Antenna	
Antenna Mounting Kit	
GPS RF Cable (25 meters with N-type Male connectors)	
SAT RF Cable (25 meters with TNC Male connectors)	
Power Cable	
USB OTG Cable (For upgrading the SeaStar's firmware)	

Base Terminal Port introduce



Alert Button: For emergency usage. To notify pre-configured contacts during an emergency. Press and hold the RED key for 2 seconds to trigger the alert



SIM Card Slot: To insert Thuraya SIM Card

Mini USB Port: It is for Terminal maintenance and Firmware upgrade. For more information, please contact your distributor

Reset Port: To restart the Terminal

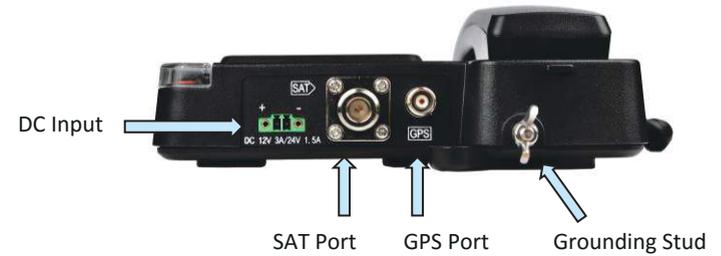
RJ-9 Port: Link to the handset line



- Serial Port:** This is a 3 wires (TX, RX and ground) RS232 port. It is for communication module maintenance and Firmware upgrade. For more information, please contact your distributor
- RJ-45 Port:** This is a port which a computer could use GmPRS to surf the Internet by a single network cable
- Power ON/OFF:** This is the system power On/Off switch.
- 3.5mm Port:** This is the system voice port, which could connect a loud speaker to play the calling voice



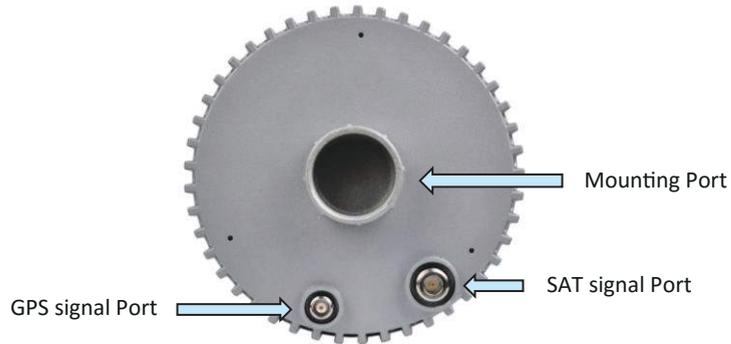
- RJ-11 Port:** This is the port which can be connected to a common switched circuit voice phone to extend the satellite phone function
- RJ-9 Port:** Link to the handset line



- DC Input:** Power input connector is used for connecting the external power source (10.8 - 31.2V) to the Base Terminal and active antenna.
- SAT Port:** SAT ANT port is used for the physical connection - via an RF cable between the satellite active Antenna unit and the Base Terminal.
- GPS Port:** GPS ANT port is used for the physical connection between the GPS antenna and the Base Terminal.
- Grounding Stud:** To ground the terminal with a grounding cable.

Antenna Unit





The Antenna unit has two RF (female) connectors at its base. One connector is the **SAT signal port** (N-type connector), and the other is the **GPS signal port** (TNC connector).

SAT RF Cable: The SAT RF cable is 25 meters in length and is terminated with an N-type (male) connector at each end

GPS RF Cable: The GPS RF cable is 25 meters in length and is terminated with a TNC (male) connector at each end

Mounting Port: Install the stainless steel stand to fix the Antenna

2. GETTING STARTED

Before proceeding, please refer to **"SeaStar Installation Guide"** and install the Thuraya SeaStar system and connect all the cables according

Installing the SIM card

The Thuraya SeaStar system requires a valid SIM card to access the satellite network and configure the settings of the Base Terminal

Follow these steps to install the SIM card:

1. Flip down the SIM card cover
2. With the SIM card's gold contact facing down, position the card as indicated and slide it into the slot
3. Ensure that the SIM card is correctly located
4. Close the SIM card cover

Power Up the SeaStar

Follow these steps to power up the SeaStar

- Tip the Power On/Off Switch to the left



Making the first voice call

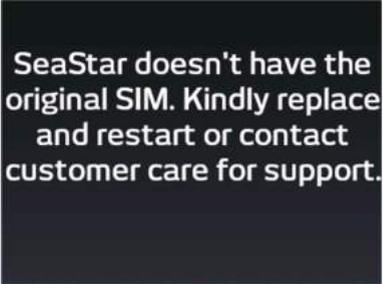
Note:

Before making a voice call, please make sure that:

- The Modem is initializing ( status indicator should be on) this shall be replaced by the modem is initialized ( status indicator) and then The Terminal is registered for CS (Voice) service ( status indicator) this shall then be replaced by signal strength indicator shown below.
- Signal strength could be usable (     status indicator should be on)
- The Thuraya SIM card isn't inside ( status indicator should be on)

Note:

If the security code open and user change another card or do not insert SIM card, SeaStar will turn into the protected mode and display the figure below.



SeaStar doesn't have the original SIM. Kindly replace and restart or contact customer care for support.

When this is displayed, that means no SIM card insert or the wrong SIM card has been inserted, please restore the original SIM card and restart SeaStar to go out of the protected mode.

Handset locking mechanism:

When placed on hook, the handset is locked onto the cradle. When going off-hook (picking up the handset from the cradle), please make sure to push the handset forward before lifting it off the cradle

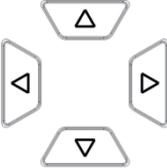
When you are replacing the handset, make sure it is locked onto the cradle

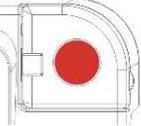
3. USING THE SeaStar



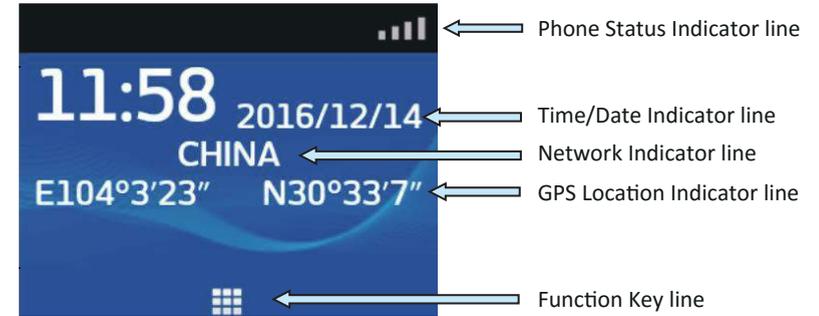
1. Left Function Key
2. Right Function Key
3. Okay Key
4. 4-Way Navigation Buttons
5. Home Key
6. Clear Key
7. Handset (Ring tone speaker underneath)
8. Keypad(Alpha-numeric)
9. 2.4 inch 65K color TFT LCD Screen
10. Alert Button

Keypad- Description and Functions

Keys	Description / Functions
	Left Function Key The Function of this key depends on the guiding text shown on the display above this key
	Right Function Key The Function of this key depends on the guiding text shown on the display above this key
	Okay Key Pressing this key selects or confirms the function highlighted on the display When making a call, press this key after entering the number to quick start the dialing
	4-Way Navigation buttons Press the 4-Way navigation buttons to scroll left, right, up and down on the display. Enables scrolling through names, phone numbers, menus or settings
	Home Key This Function is to access to the Home screen of the terminal
	Clear Key Press this key once to clear one character at a time or press and hold this key to clear the whole text entry

	<p>Alert Button</p> <p>Press this key to notify pre-configured contacts by SMS during on emergency</p>
	<p>Keypad</p> <p>Used to enter numbers or characters</p> <p>Press 0 to add a space when writing the text</p> <p>The functions available depend on whether you are typing a phone number or text</p>
	<p>Star * Key</p> <p>When entering a phone number, press this key to insert a *, press and hold this key to insert a +</p> <p>When entering a text number  use to enter a +</p> <p>When writing text, press this key to access a list of special symbols</p>
	<p>Hash # Key</p> <p>When entering a phone number, press this key to insert a #</p> <p>To quickly change the text input method when writing text, press this key repeatedly and check the indicator at the top of the display</p>

The Home Screen



- **Phone Status Indicator line**

This indicator line shows status symbols of the operating conditions of the SeaStar terminal

- **Time/Date Indicator line**

The Time/Date Indicator line by default shows UTC time, it can be set to show a local time zone if required

- **Network Indicator line**

This indicator line shows the registration status and region information of the SeaStar terminal

- **GPS Location Indicator line**

This indicator line shows the GPS Location coordinate

- **Function Key line**

This Function key line operates using the Left  or Right  function keys with the  to access menus and controls

Status Indicators

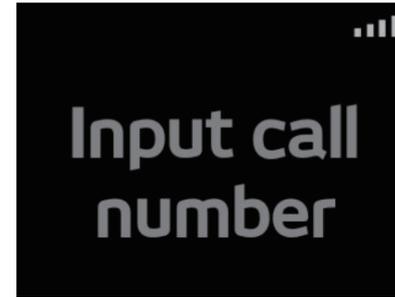
Tables below explain the meaning of each status indicator displayed in the Home screen.

Status Indicators	Description
	The Modem is initializing
	The Modem is initialized
	The Terminal is registered for CS (Voice) service
	Signal strength
	The Thuraya SIM card isn't inside
	New short message (SMS) in inbox
	Missed calls
	GPS Tracking on
	GEO Fencing on
	GmPRS connecting
	GmPRS connected

Making / End a Voice Call

Note:

Before making a voice call, please make sure SeaStar has registered the network and signal strength could be usable ( status indicator should be on)

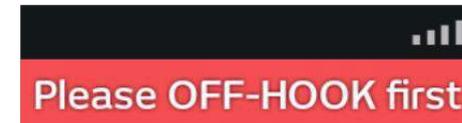


Handset locking mechanism:

When placed on hook, the handset is locked onto the cradle. When going offhook (picking up the handset from the cradle), please make sure to push the handset forward before lifting it off the cradle

When you are replacing the handset, make sure it is locked onto the cradle

If dialing without OFF-HOOK, the screen will prompt with the next figure



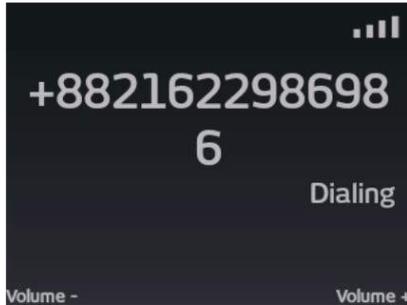
Next:

To make a call from the Base Terminal, dial

+<country code><phone number> and press  key or wait for 4 seconds to start auto dialing

or

00 <country code> <phone number> and press  key or wait for 4 seconds to start auto dialing



Note:

For voice calls and SMS, you may also use '+' by pressing and holding the **+*** key instead of "00" at the beginning of dialed number string as an alternative ('+' <country code> <phone number>).

To end the call, re-place the handset on the cradle
 To accept an incoming call, lift up the handset from the cradle

Receiving a call

When there is an incoming call, the SeaStar terminal will:

- Ring
- The calling party's number will be displayed on the screen
 The corresponding name of contact will be displayed if the number is stored in the contacts

To answer an incoming call, Pick up the handset from the cradle or if connected the analogue phone.

Adjusting volume during a call

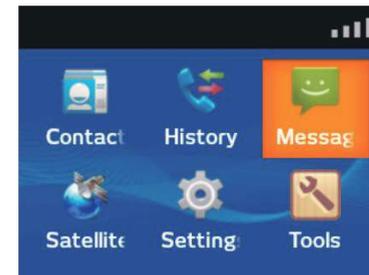
Use Left  / Right  Function Key adjust the volume.

Using the Main Menu

You can access the Main Menu by pressing the Left Function  key or **OK** Key from the Home screen.



The Main Menu includes 6 menu options with each menu option having their respective sub-menus.



You can use the 4-Way navigation buttons to navigate to the desired menu option and press **OK** to confirm your selection. You can also end the menu or submenus and return to the Home screen at any time by pressing the Home  key or continuous pressing the Right Function  key many times.

Table below summarizes the functionalities within each menu option:

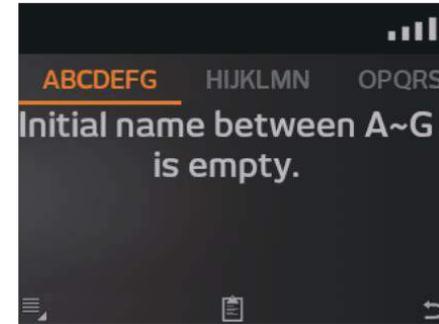
Icon	Description
	Contacts This menu manages your user contacts
	History This menu allows you to view call histories
	Messages This menu is for SMS related services
	Satellite This menu configures Satellite settings.
	Settings This menu configures general terminal settings.
	Tools Has a calendar and GmPRS Dialer application



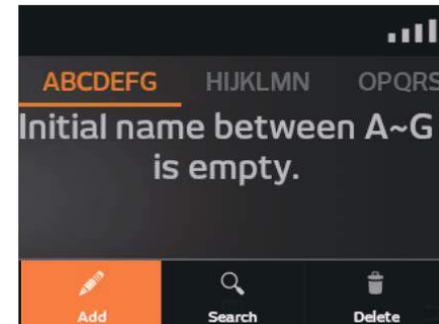
Contacts Menu

The Contacts menu allows you to store, retrieve and update names and phone numbers of your contacts.

Contacts browse is divided into A~G, H~N, O~T, U~Z

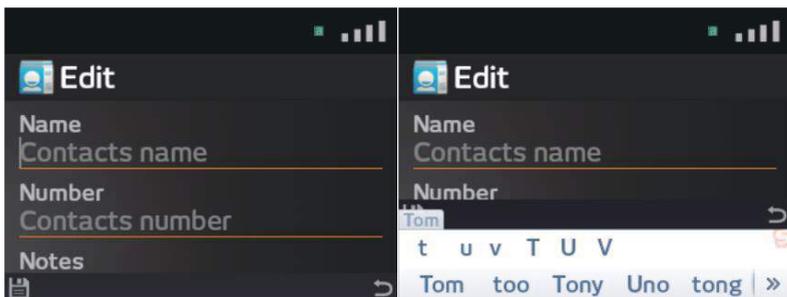


Press Left Function  key, there are three options: Add Contacts, Search, Delete Contacts. Choose Contacts and press  key to edit Contacts detail.



Add Contacts

1. From top to bottom, Input contacts name, Phone number and Note.
2. Press Left Function  key to save or press Right Function  key to return and cancel the save.



Note:

You can also delete the selected contacts by pressing the Clear

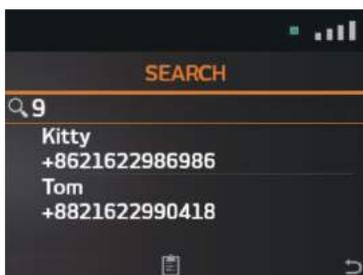


key.



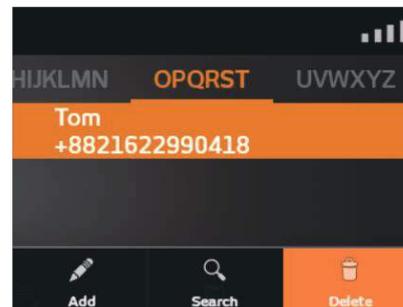
Search Contacts

Input key words in the search box (After  icon), you can search by name or number

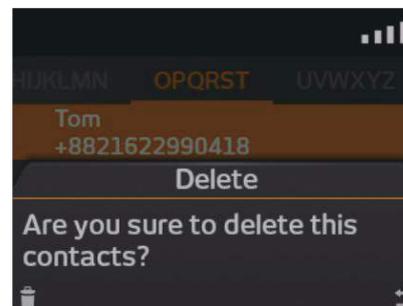


Delete Contacts

1. First, use 4-Way navigation buttons to choose the contacts who needs to delete
2. Press Left Function  key to pop up menu
3. Use the 4-Way navigation buttons to move the focus on the Delete Contacts



4. Press  key to pop up whether it is confirmed to delete the contacts



5. Use Left Function  key to delete the contacts, while Right  Function key represent to cancel the delete



Edit Contacts

1. Use the 4-Way navigation buttons to choose the contacts who need to be edited
2. Press **OK** key to browse contacts
3. Press Left Function key to pop up three options: Edit, Call, Send SMS



4. Press **OK** key to edit

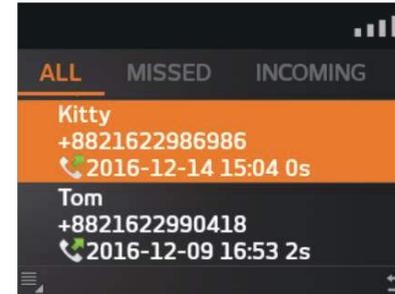
Note:

Press call or send SMS could achieve corresponding function.

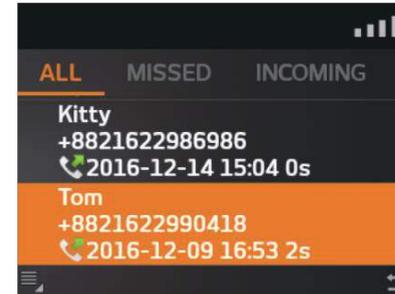


History Menu

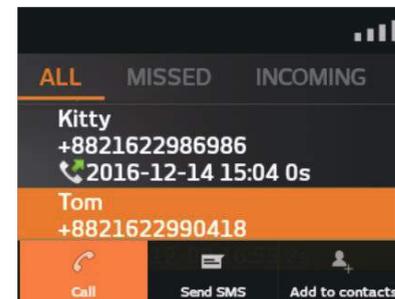
1. Call history menu has 4 sub-menus items, which are all, missed, incoming, outgoing (use the Left and Right arrow of 4-Way navigation buttons to switch)



2. Use the Up and Down arrow of 4-Way navigation buttons to choose the call record which needs to be edited



3. Press Left Function key to display three options: Call, Send SMS and Add to contacts respectively.

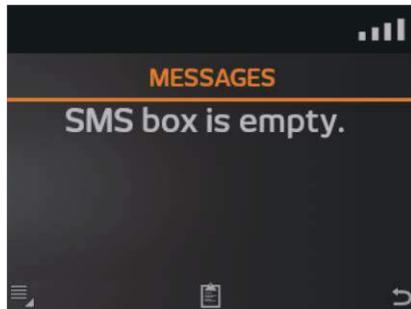


4. The following instructions detail the making of a Call, Send SMS and Add to contacts (If it isn't in contacts box)/Edit this contacts (If it is in contacts box)



Messages Menu

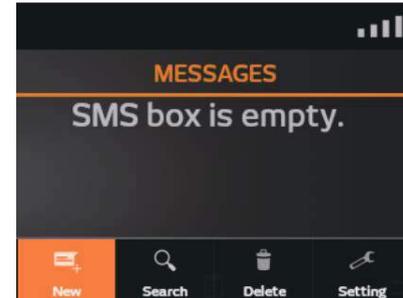
After entering into messages menu, the user can enter into message preview interface, the interface will display recently send and receive messages. The messages are divided into different sessions based on different contacts. Pressing left soft key to pop up four options: New message, Search, Delete session, Setting.



New messages

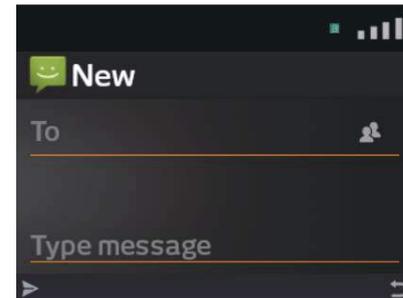
Follow these steps to send the first SMS:

1. Press Left Function  key to show the New Message option



2. Press  into the SMS editing mode

3. Type in your SMS message using 4-Way navigation buttons and the alphanumeric keypad



Tips for add SMS contacts:

- To add a +, press and hold the  key.

Tips for writing text:

- To add a space, press the  key.
- To quickly change the text input method when writing text, press repeatedly end check the indicator at the top of the display: 

- <a >: English input method
- <123>: Numbers input

- To add a number, press and hold the desired number key.

Insert symbols to your message:

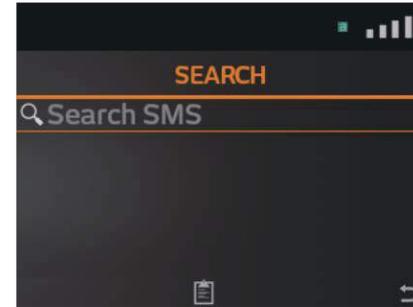
- To get a list of special symbols, press 
- Using the 4-Way arrow key, navigate to the desired symbol.
- Press  to confirm selection.

Clearing text:

- To clear text, press Clear key  once to clear one character at a time.
- To clear the whole text entry, press and hold the Clear key  to clear the whole text entry.



1. Press Left Function  key to pop up four options
2. Use Left and Right arrow of 4-Way navigation buttons to switch the focus to search option and press  key to entering into search function



3. Input the key word name or number in the search box (After  icon and the cursor blink place)

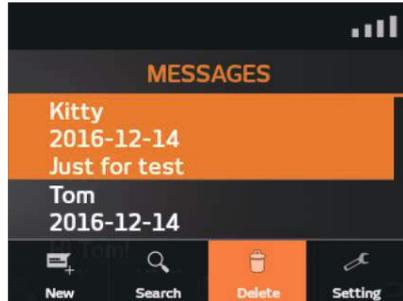


4. Under the search box, there is a preview interface to display the search result

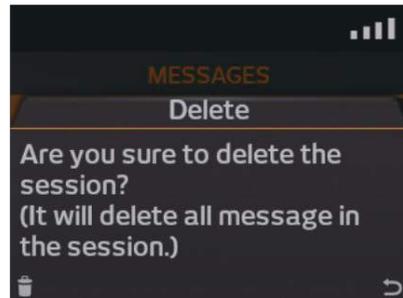


1. Use Left and Right arrow of 4-Way navigation buttons to choose the session which needs to delete
2. Press Left Function  key to pop up 4 options

3. Use Left and Right arrow of 4-Way navigation buttons to focus to Delete session



4. Press **OK** key to pop up confirm delete option



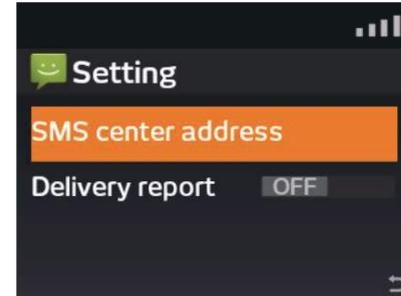
5. Left Function  key represents confirm delete, while Right  Function key represents cancel the delete



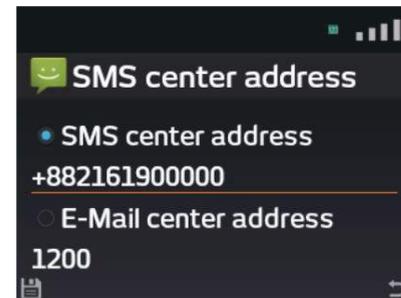
1. Press Left Function  key to pop up four options

2. Use Left and Right arrow of 4-Way navigation buttons to switch the focus to SMS Setting and press **OK** key to entering into SMS Setting function

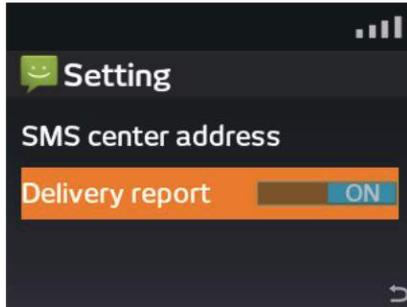
3. Then it will pop up two option: From up to bottom is SMS center number, Deliver report



- SMS service center number could set SMS and email center number, this function belongs to advanced setting option, it is strongly recommended that the user should not modify it



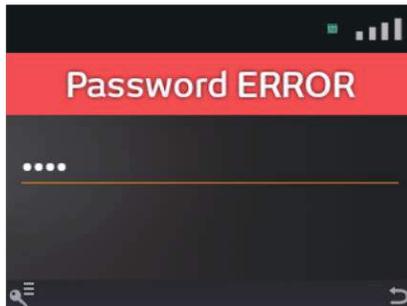
- SMS Send delivery report function, default is close (icon), press **OK** key to enable the option, and press **OK** to disable the option. The enable and disable is a cycle



Satellite Settings Menu

- This menu has 5 sub-menus: GPS setting, Black and white list, Emergency, Security and RJ11 impedance settings
- First of all, user need enter the correct password to into this menu

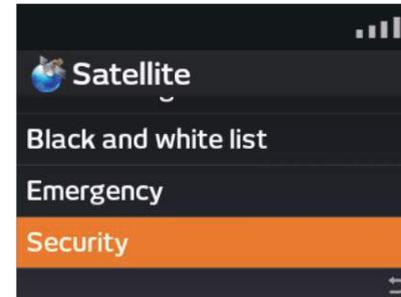
Put the cursor on the icon of Satellite setting menu, press **OK** key to enter into password input interface, the default password is “1234”, after inputting the



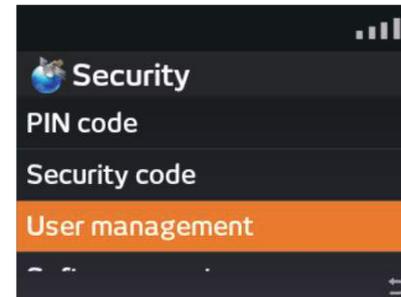
password and press Left Function **↵** key or **OK** key to confirm. If the password is correct, enter into the SAT setting menu. Otherwise, it would display “Password ERROR” on the interface

Note:

- If you want to change this password, please input the right password and press **triple** Down arrow of 4-Way navigation buttons to switch the focus to choose Security option and press **OK** key



- Next press **twice** Down arrow of 4-Way navigation buttons to switch the focus to choose User management option and press **OK** key



- For safety, we suggest user change default password to your own password in time

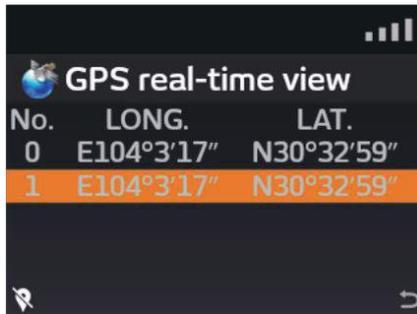
After input the correct password, SeaStar will entry the Satellite Settings Menu, and this menu has 5 sub-menus: GPS setting, Black and white list, Emergency, Security and RJ11 impedance settings

GPS Settings

GPS setting menu has 3 sub-menus: GPS real-time view, Alert area and GPS tracking

● GPS real-time view

- GPS Real-time View display real-time coordinate information. The display information is divided into number (No.), longitude (LONG.), latitude (LAT.), refresh every one second



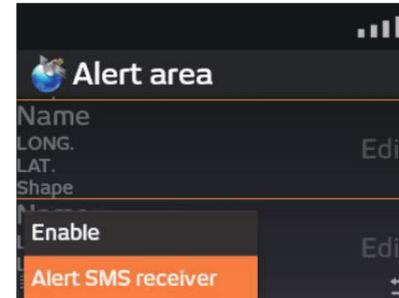
- Use Left Function  key to close  or open  the GPS refresh
- Press Right Function  key to return to higher level menu

● Alert Area

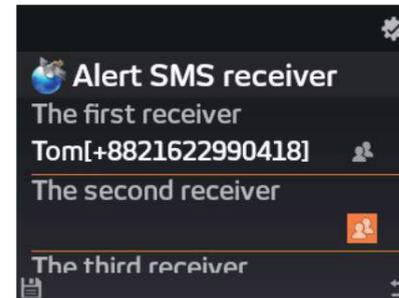
Alert area can set five alert areas

- First, set less one receiver contacts

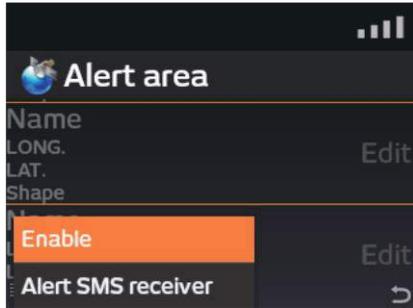
- Press Left Function  key to pop up the sub-menu and use down arrow of 4-Way navigation buttons to switch the focus to choose Alert SMS receiver option



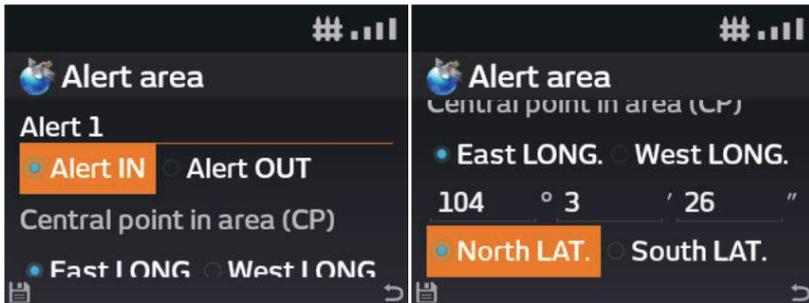
- Press  Key to edit the three receiver detail. In the Alert SMS receiver option, three alert contacts could be set. The alert contacts could also be chosen from the contacts



- Press Left Function  key to save receiver settings
- Next, press Left Function  key to enable or disable this function

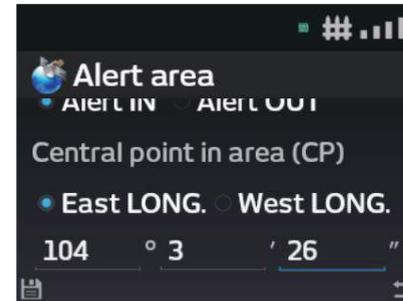


- Return to the Alert area menu, press **OK** key to enter into edit interface, when the settings done, Geo fencing **#** icon will display

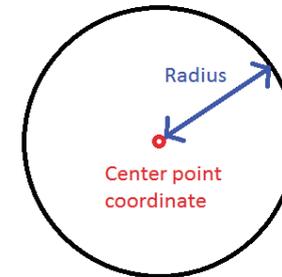
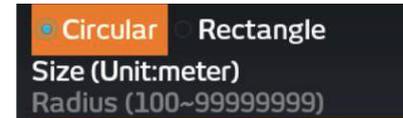


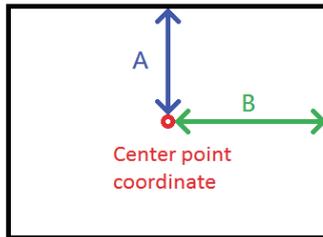
- After entering into edit interface, from top to bottom, the Area name, IN/OUT alert and Center Point in Area would be displayed to be set
 - Alert IN means send alert SMS when the terminal enters into this Alert area, Alert OUT means send alert SMS when the terminal exits out of this Alert area
 - In the center point, choose east longitude and west longitude, fill degree, minute and second in the corresponding coordinate (All degree, minute and second are integers)

- Use 4-Way navigation buttons to choose south and north latitude, fill degree, minute and second in the corresponding coordinate (All degree, minute and second are integers)



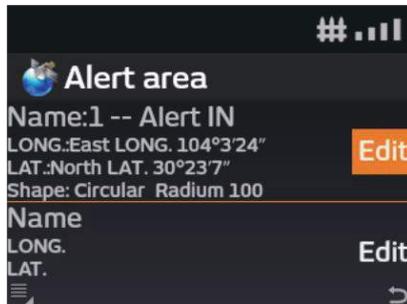
- Then choose area type, circular or rectangular
 - Circular: Fill in the center point coordinate, radius length (Unit meter, min 100 meters, max 99999999 meters)





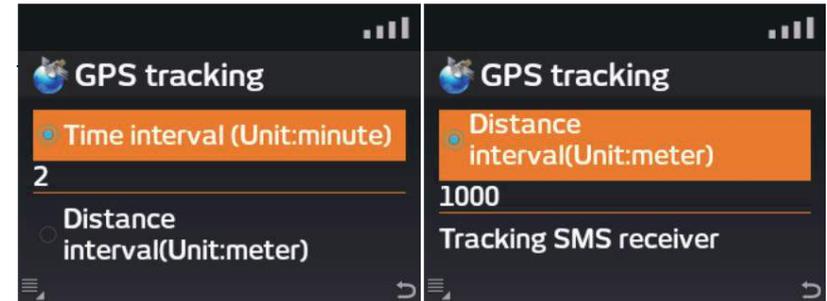
☆ Rectangular: the center point coordinate, the half-length of rectangular side in the north and south direction (Latitude: Like A in the figure), the half-length of rectangular side in the west and east direction (Longitude: Like B in the figure) (Unit meter, min 100 meters, max 99999999 meters)

◆ Finally, press Left Function  key to save or Right  Function key to cancel the save

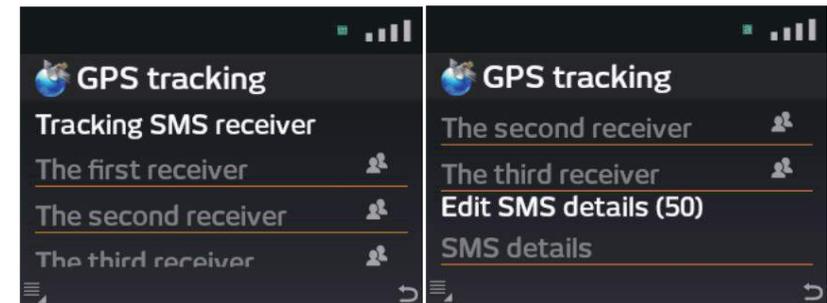


● GPS Tracking

- Open the GPS tracking setting, firstly use UP and Down arrow of 4-Way navigation buttons to choose the time interval (Unit minute, min 2 minutes, max 999999 minutes) or distance (Unit meter, min 2 minutes, max 999999 minutes) interval

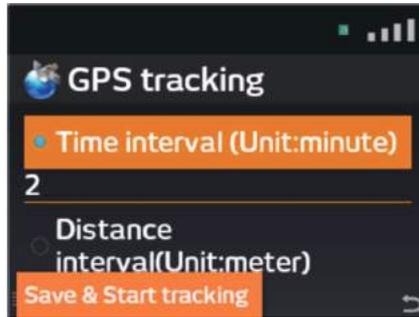


- Use UP and Down arrow of 4-Way navigation buttons to switch the focus to choose three GPS tracking contacts (the GPS tracking contacts could be chosen from contacts), besides user can edit the message content (Max 50 characters), and these contents will add after the GPS information

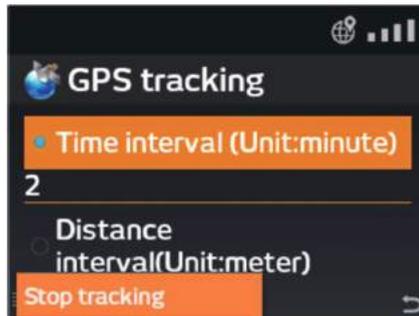


- When completed filling in the relevant fields, press Left Function  key to popup sub-menus, Save & Start Tracking.

- ◆ When select the Save and start tracking, the terminal will save the settings and start send SMS to the set Contacts



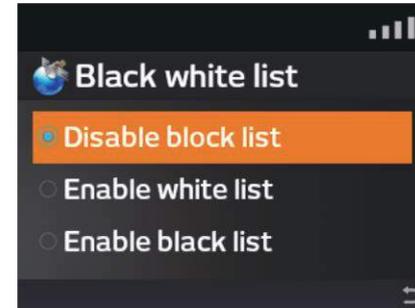
- ◆ The above-mentioned method can close the GPS tracking



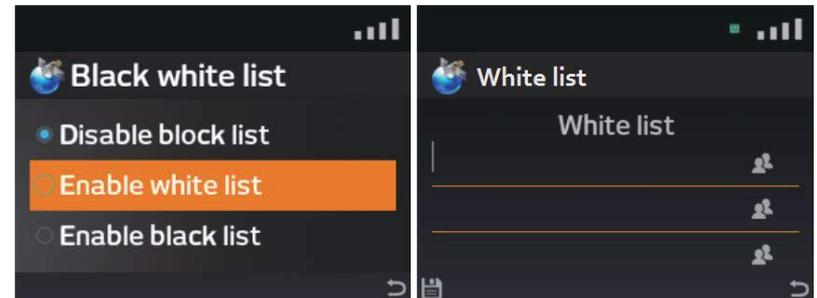
Black & White List

This function allows the user to set up a list of allowed phone contacts (white list) or blocked contacts (black list)

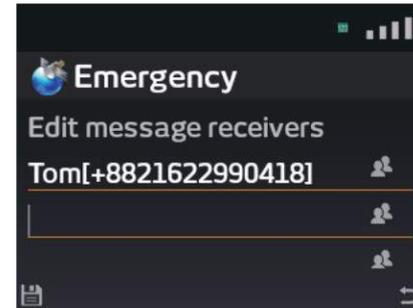
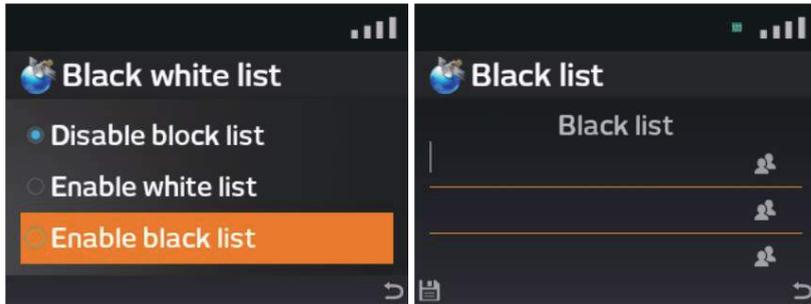
- Under the menu, the sub-list would show Disenabled block list, Enabled white list, Enabled black list



- Enable white list, 10 contacts can be set, if tracking or emergency functions are being used ensure that the related tracking and alert numbers are in the white list

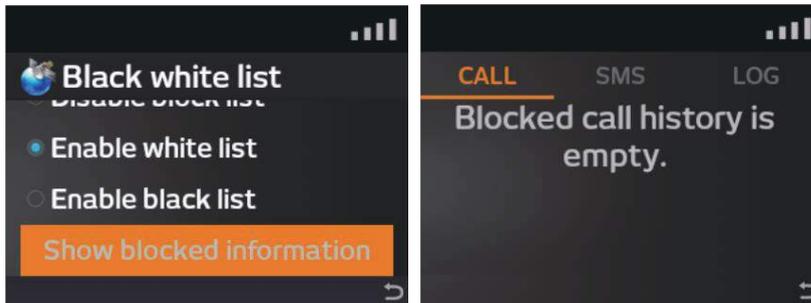


- Enable black list, 10 numbers can be set



Note:

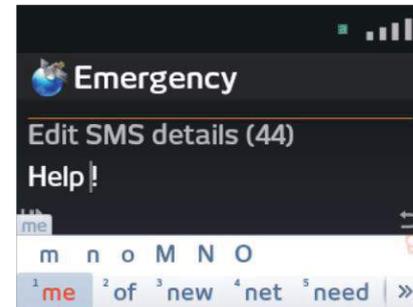
When enable Black or White list, the menu below will show the intercepted call records or messages, click **OK** to enter and view



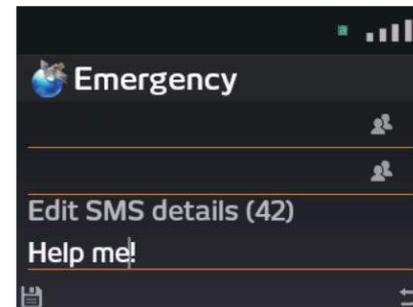
Emergency

- The menu is used to set SOS message contacts (More using information about SOS message in Page 32 Alert Button item), totally 3 emergency contacts could be set (The contacts could also be chosen from contacts)

- In the emergency contacts edit interface, alert message content can be edited less than 50 characters



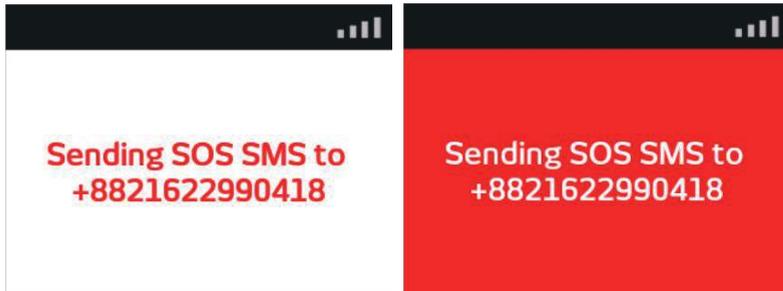
- After all the editing, click Left Function  key to save , while Right Function  key to cancel



- When in emergency, to notify pre-configured contacts during an emergency. Press and hold the RED key for 2 seconds to trigger the SMS alert



- Display will flash the figure above

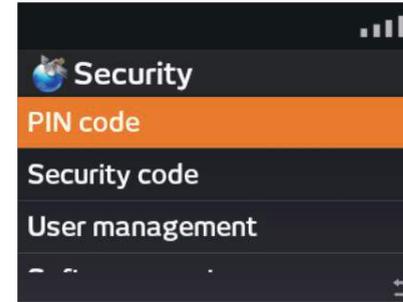


- Press the button again 2 seconds to close SOS SMS emergency alert

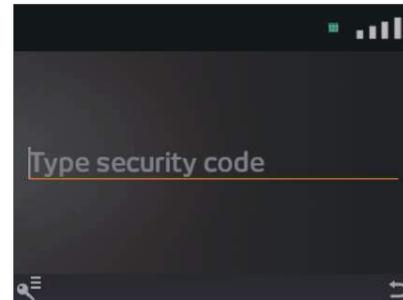
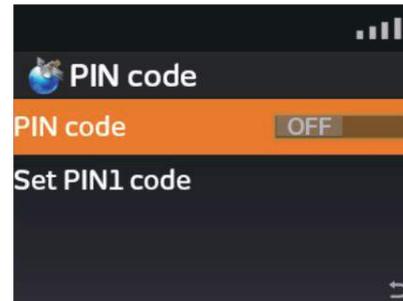
Security

The security menu has 4 sub-menus: PIN code, Security Code, User management, Software reset. This allows the user to restrict access to the phones functions via a PIN code.

- PIN code includes Set PIN1 code



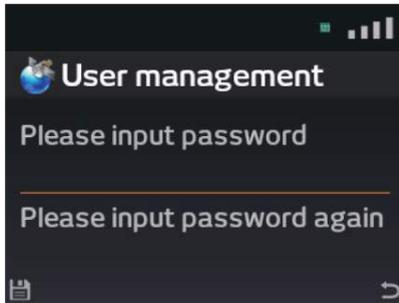
- Security code sets security code. Set the password according to the following steps. After entering into security code menu, use **OK** key to select "Enable/Disable use Security code"



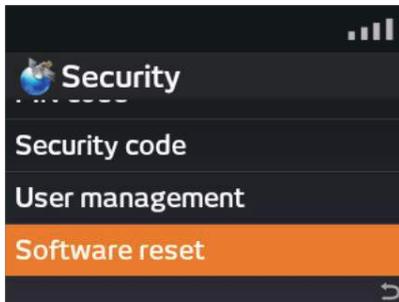
Note:

If user has opened it, you need enter the Security code to close it, and please contact your distributor to get this Security code

- Entering user management interface, input the password which needs to be set and input again to confirm the password. Press left soft key to save while the Right Function  key to cancel

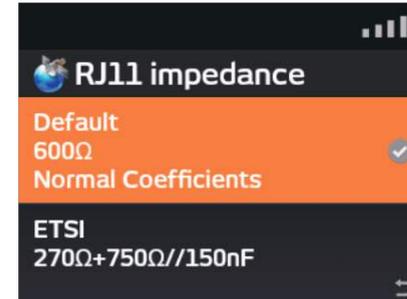


- Software reset means clean all user data and restore to default SeaStar settings



RJ11 impedance settings

Because the RJ11 port could link to sub circuit switch phone or PBX function to extend the function of satellite phone, and different Country or District have different impedance settings, it is very important to do an appropriate set up before you connect sub circuit switch phone or PBX with the SeaStar



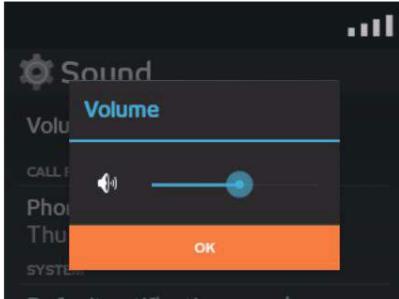
Terminal Settings Menu

Terminal setting includes Sound, Display, Language & Input, Date & Time, About SeaStar

Sound

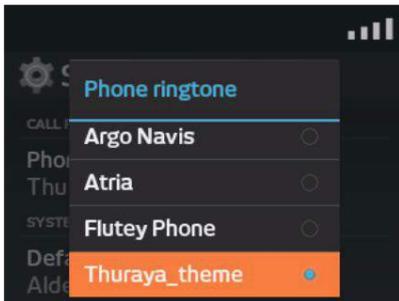
- First item: Volumes

Press  key to enter the volume menu, set the system volume and call volume. Use Up and Down arrow 4-Way navigation buttons to choose, while Left and Right arrow 4-Way navigation buttons are used to adjust the volume. Besides, use the down arrow 4-Way navigation buttons to choose  Key to save the modification



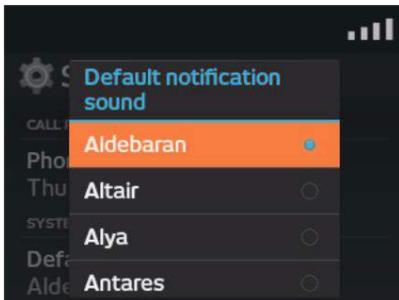
- Second item: Phone Ringtone

Choose incoming ring and press **OK** key to save



- Third item: Default notification sound

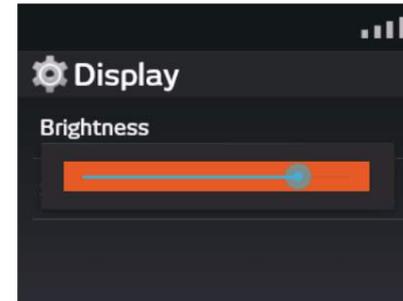
Choose system notification ring and press **OK** key to save



Display

- First item: Brightness

Press **OK** to enter into the backlight brightness adjustment menu, use Left and Right arrow 4-Way navigation buttons to adjust the brightness and use the Right Function **▶** key to save and return

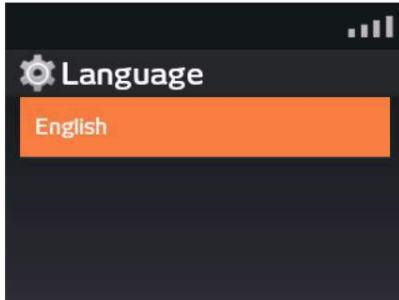


- Second item: Display Sleep

Press **OK** to enter into the menu. Use the Up and Down arrow 4-Way navigation buttons to set the sleep time is never, 15 seconds, 30 seconds, 1 minute, 2 minutes, 5 minutes, 10 minutes and 30 minutes. Press **OK** to save and return or choose cancel / press Right Function **▶** key to cancel.

Language & Input

- Only one language could be chosen: English



- Second item: 24 hour format display

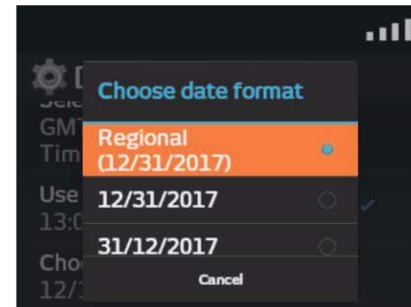
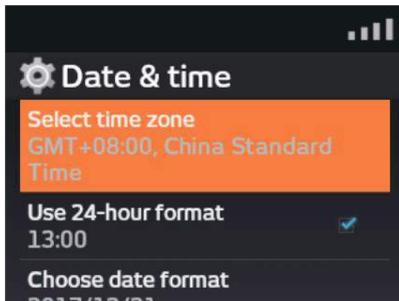
Press **OK** key to switch.

- Third item: Date format display

There are 3 formats could be chosen: MM/DD/YYYY、 DD/MM/YYYY and YYYY/MM/DD. Press **OK** Key to save and return or choose cancel option / press Right Function key to cancel

Date & Time

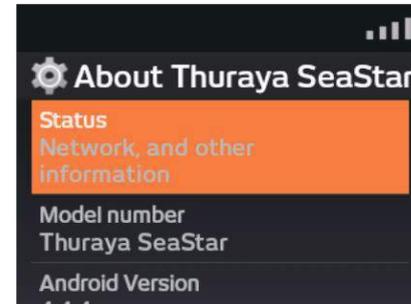
- Press **OK** key to enter the first item: Select time zone



Press left soft key to choose sort method (Time zone sort or city name sort). Use up and down key to choose the time zone and press **OK** to save and return to the higher level menu.

About SeaStar

- Press **OK** key to enter About Thuraya SeaStar equipment option, this menu displays the phone current status, android related legal information and version information



- The first item: Status

It could display the Signal strength , Service state, Mobile network state, IMEI, IMEI, ICCID, Modem Version and GPS Version

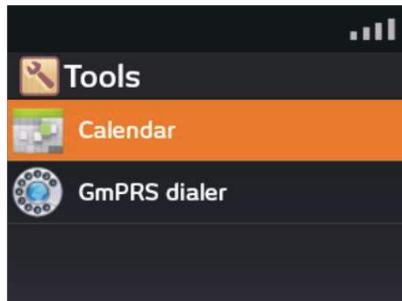
- The others item

These items are about Android Legal Information, satellite model number and some other version information



Tools Menu

Tool menu includes Calendar and GmPRS Dialer



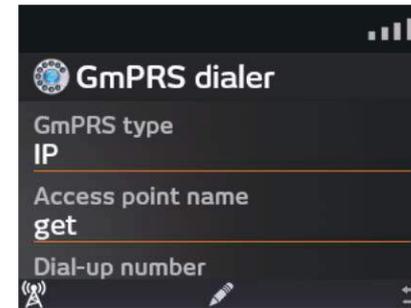
Calendar

- Use Up and Down key to change the years
- Use Left and Right key to change the months
- Press **OK** to return to today's date

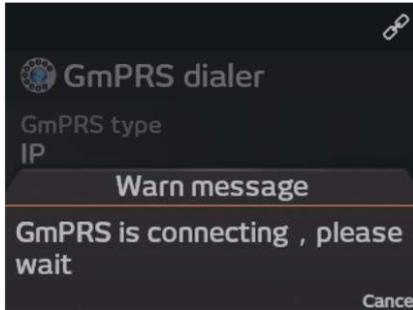


GmPRS Dialer

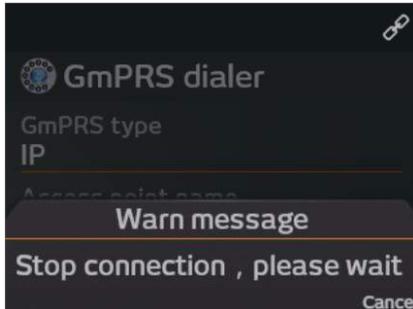
Press **OK** key to enter into this function, and then press **OK** key to start editing settings (GmPRS Type, Access Point Name, Dial-UP Number and Address). These four options belong to the advanced configuration, it is recommended that the user does not change the setting.



- Press Left Function **←** key to start dialing and the terminal enter into GmPRS internet mode.



- Press Right Function  key to cancel the connection



- The user could use cables to connect SeaStar satellite phone's RJ45 interface and computer.



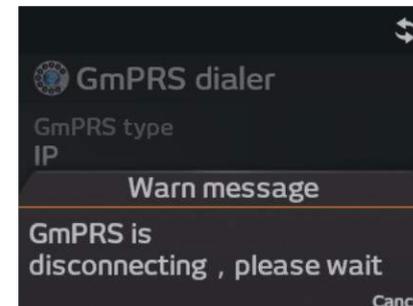
- Setting the computer to automatically obtain IP address. As a result, the computer could access the Internet via the terminal.



Note:

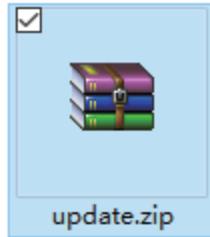
If the satellite phone enter into GmPRS Internet access, any incoming call or message would not receive or displayed on the interface, the person who make the incoming call would hear the busy tone

- Finally, Press Left Function  key again to shut down GmPRS Dialer function and disconnect to the internet



Upgrade SeaStar

- Please download the last SeaStar firmware in Thuraya website (Named: update.zip)
- Download this firmware package in a USB disk or any other storage device
- Find the USB OTG cable in box, and put this U disk or any other storage device into the USB OTG cable's port
- Open the cover and insert the USB OTG cable into the Micro USB Port of SeaStar



Micro USB Port

- Wait a moment, SeaStar screen will display an Upgrade menu prompt



- Press **4 times** of the Down arrow 4-Way navigation buttons, and press **one time** of the Right arrow 4-Way navigation buttons to move the focus to the "Install"



- Press  Key to start the firmware update

Warning:

During the upgrade process, please make sure that the power supply is continuous

- Wait for several minutes until the upgrade process completed, and SeaStar screen will restart and display the mean menu

Declaration of RoHS Compliance

To minimize the environmental impacts and take more responsibilities to the earth we live on, this document shall serve as a formal declaration that the **SeaStar satellite terminal** manufactured by Thuraya Telecommunications Company is in compliance with the Directive 2011/65/EU of the European Parliament - RoHS (Restriction of Hazardous Substances) with respect to the following substances:

1. Lead (Pb)
2. Mercury (Hg)
3. Cadmium (Cd)
4. Hexavalent Chromium (Cr (VI))
5. Polybrominated Biphenyl (PBB)
6. Polybrominated Diphenyl Ether (PBDE)

The **SeaStar satellite terminal** manufactured by Thuraya Telecommunications Company, meets the requirements of EU 2011/65/EU.