THALES

JULY 2019

Thales SureLINK IP Handset

User Guide

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RECORD OF CHANGES

Rev	Date	Description of Change	Author
Rev 1	July 2019	Initial Release	SJacques

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User Documentation:

Thales Defense & Security, Inc. continually evaluates its user documentation for accuracy and completeness. Any suggestions you may have for changes or additions should be sent to THALES_ILS@thalesdsi.com Subject Line: Thales SureLINK User's Guide (PN 84481).

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SAFETY

WARNING

SHOCK HAZARD

The Thales SureLINK Handset is a sealed system and is not meant to be opened for repair in the field by operators or technicians. Covers must remain in place at all times to maintain the warranty terms.

WARNING

DO NOT OPERATE IN AN EXPLOSIVE ATMOSPHERE

This equipment is not designed to be operated in explosive environments or in the presence of combustible fumes. Operating this or any electrical equipment in such an environment represents an extreme safety hazard.

CHAPTER 1 INTRODUCTION

INTRODUCTION

Thank you for purchasing the Thales SureLINK ruggedized IP handset. The SureLINK handset operates with the Thales MissionLINK® and VesseLINK™ systems providing voice communications and system configuration and control at your fingertips. With a large internal speaker and noise cancellation technology, the Thales SureLINK provides clear communications in the noisiest of environments. Make an emergency call with the onboard Emergency button, use the Thales Softphone application to make or receive phone calls discreetly or through the speakerphone, configure, and monitor the satellite system through the Thales Management Portal from the large touchscreen display. An Ethernet connection to the terminal allows the Thales SureLINK handset can be conveniently located in just about any desired location within easy reach. This weather resistant design using a Corning® Gorilla® Glass display is sure to withstand the toughest environments in a small handheld package.

NOTE

For information pertaining to the Management Portal on the terminal unit, refer to either of the following user guides.

- Thales MissionLINK® User Manual (Document # 84468)
- Thales VesseLINK™ User Manual (Document # 84469)

NOTE

This user manual is intended for anyone who intends to operate and configure the Thales SureLINK Handset. It, however, cannot cover all topics and advanced features. For questions or topics that are not covered in this manual please contact your service provider or Thales at www.Thalesdsi.com.

NOTE

The Thales SureLINK Handset does not allow access to the Internet and only runs applications that are preloaded by Thales.

SureLINK Key Features

- Android based operating system for simple navigation
- 4-inch high resolution touchscreen display using Gorilla Glass
- Weather resistant design that meets the IP65 standard
- Multiple internal speakers for use as standard handset or speakerphone
- Loud volume exceeding 90 dB SPL in speakerphone mode
- Single-button intuitive volume control
- Noise cancellation technology for use in high noise environments
- Dedicated Emergency button for emergency calls and sending GPS location coordinates
- Powered over Ethernet so no external power connection required
- Included LINK application for voice calls, Distress and Thales Management Portal

- Push-to-Talk (PTT) ready with dedicated PTT button (future)
- 3.5mm headset jack to accommodate multiple earpiece accessories
- 6-foot coil cord for clean look and ultimate flexibility
- Includes mounting hardware for mounting to a wall or hard surface

Kit Contents

The following list of equipment cones standard in the SureLINK kit and can be purchased individually as spares, depending on your requirements and/or needs. (Refer to Figure 1-1.)

Table 1-1 Thales SureLINK Handset

Part Number			Description
1100818-501			Kit, Thales SureLINK Handset
	Qty	**Part Number**	**Description**
✓	1	1600913-1	Thales SureLINK Handset
✓	1	40525-001	Button Clip Holder
✓	1	855046-001-RC	Cable Assembly RJ45-RJ45 CAT 6, 0.5 ft

Figure 1-1 Thales SureLINK Handset Kit Components

CHAPTER 2 THALES SURELINK HANDSET BASICS

GETTING TO KNOW THE SURELINK

Thales SureLINK Interfaces

Figure 2-1 Thales SureLINK Interfaces

Table 2-1 Interface Description

Interface	Description
Touchscreen LCD	Ruggedized gorilla glass display used to select the LINK icon and navigate through the screens.
Standard Phone Microphone	Microphone port on bottom used during standard phone calls
Android Buttons	The three buttons perform the following functions: • Left button – back button returns to previous screen • Center button – Home Button - quick press returns to Home screen or if display is off, turns on the display. Long press shuts off display. • Right button – shows all active applications

Interface	Description
Speaker Phone Audio Ports	Multiple audio ports used to project voice in all directions during speaker phone calls
3.5mm Jack	Allows a headset to be connected to the Handset. Standard headsets and earbuds should work through the 3.5mm jack.
Speakerphone Microphone	Microphone port on the side above the 3.5mm jack used during speaker phone calls. **Note:** Be careful not to cover up this microphone port while holding the Handset during a speaker phone call.
Standard Phone Audio Port	Audio port used for standard voice calls. Note that the audio port is not in the center of the Handset, so for optimal sound, make sure the port is correctly aligned with the ear.
Emergency Button	Dedicated button that when pressed and held enables an emergency call or message to be made to a phone number or email address
PTT Button	Used to initiate PTT transmissions when PTT functionality becomes available (Future).
Volume Button	This single button increases volume of the Handset when pressed and held and decreases the volume of the Handset in steps when sequentially pressed and then released quickly.

INITIAL SET-UP

NOTE

The following instructions assumes that the TU / BDU is powered ON.

Installing the SureLINK Handset

1. The installation of the SureLINK Handset is simply a matter of connecting the provided Ethernet 6-inch male to male Ethernet connector between the female Ethernet connector at the end of the coil cord and any one of the Ethernet/LAN connectors on the Terminal (TU) / Below Deck Unit (BDU).

Figure 2-2 Ethernet Cable Connection to Handset

2. Once the SureLINK Handset is plugged in, the screen will power up. This may take a minute or so. The Handset is now ready to use.

NOTE

The Handset has been preconfigured to operate on extension 1002, which corresponds to the second Iridium phone line.

Figure 2-3 Thales SureLINK Handset Connected to TU /BDU

NOTE

A longer Ethernet cable (not provided) can be substituted for the 6-inch provided cable to extend the SureLINK Handset farther away from the TU / BDU. This cable must be compliant with the Ethernet standard.

Mounting the SureLINK Handset

If mounting is desired, pre-drill and screw the mounting clip into a hard surface using the provided two screws. The button on the backside of the SureLINK Handset will securely fit into the clip for Handset storage while not in use.

Weather Proofing the Cord

The connection at the end of coil cord can also be more weather resistant by crimping a new male Ethernet connector on the cable once it is pushed through the provided weather resistant casing. This is not necessary and is left to the user to implement if desired.

Getting Started (Plug And Play)

Once the Handset is plugged into the TU / BDU and has powered up, it is ready for operation. (Note: the Handset does not have a ON/OFF BUTTON).

1. Press the center Android button to illuminate the screen. The Thales SureLINK home screen will appear (or it may automatically open the LINK app and display the Dial Pad).

   To open, select the icon at the bottom center () of the Home Screen.

Figure 2-4 Thales SureLINK Home Screen

2. The next screen will be the Handset Application Display. From this screen, you will select the LINK Application.

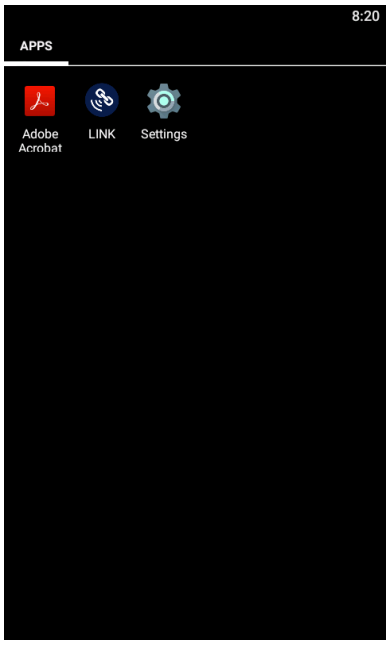


Figure 2-5 Thales Handset Application Screen

3. To open the LINK Application (

), select the LINK icon.

4. When you first open the LINK Application (for the first time), the Dial Pad will be the first screen that appears. To enter the Handset Portal, press the PORTAL icon at the bottom left of the screen.

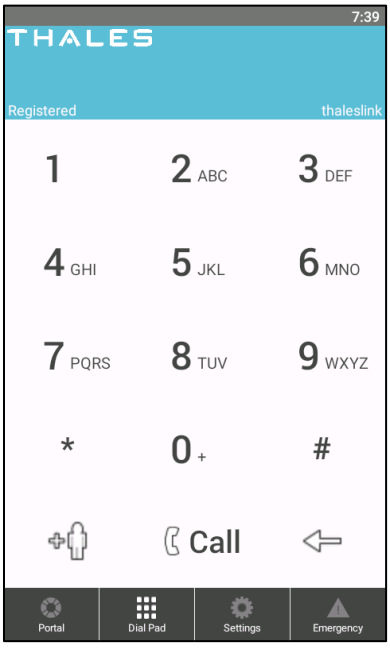


Figure 2-6 Thales Handset Dial Pad Screen

5. The LINK Application Dashboard will be displayed. The information contained in this screen is the same as you will see the TU / BDU Management Portal.

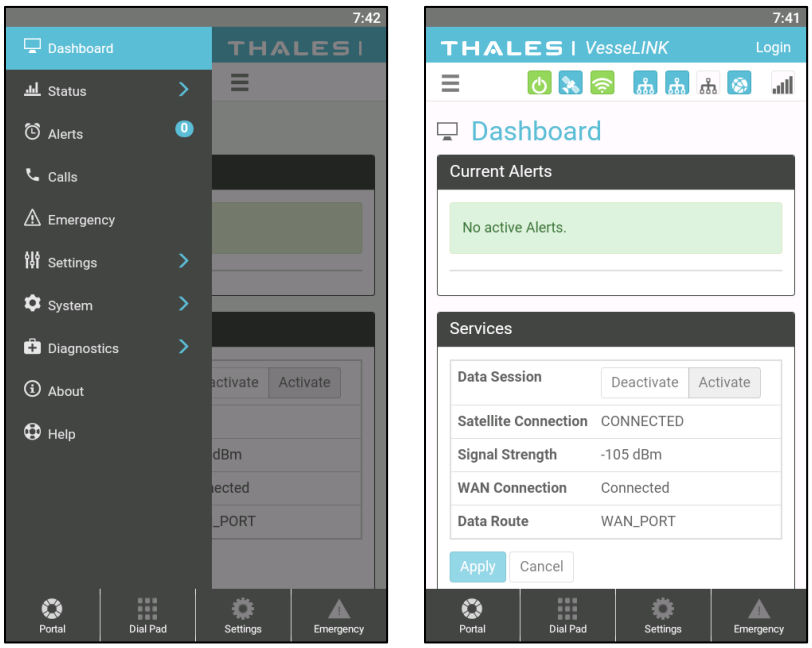


Figure 2-7 Thales Link Portal

NOTE

For information pertaining to the Management Portal on the terminal unit, refer to either of the following user guides.

- Thales MissionLINK® User Manual (Document # 84468)
- Thales VesseLINK™ User Manual (Document # 84469)

6. The SETTINGS ICON (

) allows you to configure the handset. Refer to Figures 2-8 and 2-9.

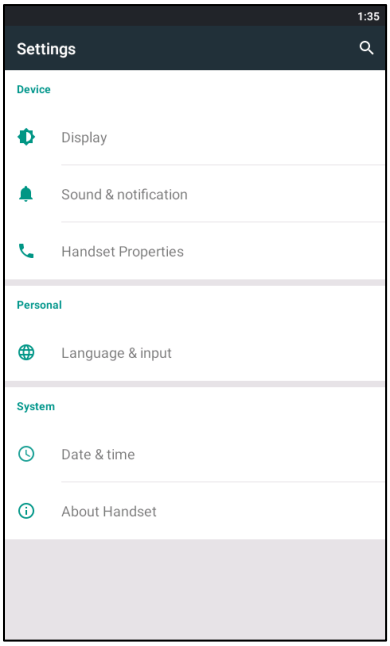


Figure 2-8 Settings (Main Screen)

Table 2-2 Settings (Main Screen)

Section	Parameters
Device	
Display	When selected, the user can: • Adjust Brightness Level • Adaptive Brightness (enable / disable) • Set Sleep mode (15 secs, 30 sec, 1 minute, 2 minutes, 5 minutes, and 10 minutes) • Set Font size (Small, Normal, Large, and Huge)
Sound Notification	When selected, the user can: • Set the volume level for Media • Set the volume level for Notification • Set the notification ringtone
Handset Properties	When selected, the user can: • Push-To-Talk (PTT) – Enable/Disable PTT • Emergency Call - Enable/Disable Emergency Call Noise and Echo Cancellation – Enable / Disable
Personal	

Section	Parameters
Device	
Language and Input	When selected, the user can: • Language – Set the desired language (English is the default setting) • Keyboard and Input Methods – Keyboard type and Android keyboard settings
System	
Time and Date	When selected, the user can: • Automatically set date and time • Automatically set time zone • Select 24-hour format • Choose date format
About Handset	When selected, the following information is displayed: • System Updates • IP Address • MAC Address • Unit S/N • Model • Android Version • Kernel Version • Build Number • Reboot device

Link Application Menu Components

NOTE

For information pertaining to the Management Portal on the terminal unit, refer to either of the following user guides.

- Thales MissionLINK® User Manual (Document # 84468)
- Thales VesseLINK™ User Manual (Document # 84469)

LINK Application Tab Buttons

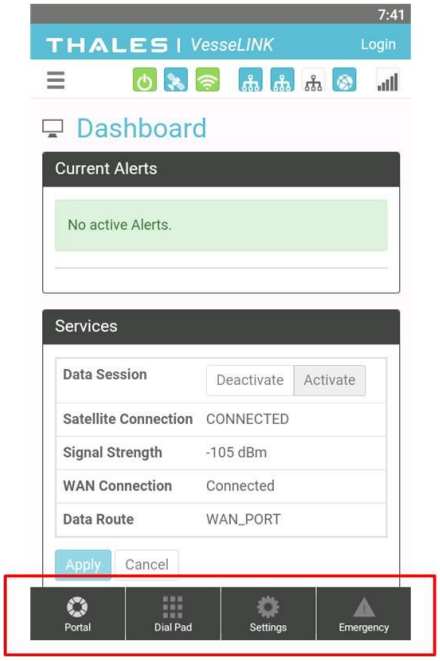
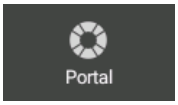
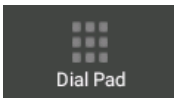
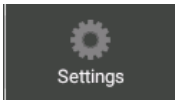


Figure 2-9 LINK Applications Tab Buttons

Table 2-3 LINK Application Tab Buttons

ICON	Description
	Portal Tab Button
	Dial Pad Tab Button
	Settings Tab Button
	Emergency Tab Button

- Portal Tab Button– When selected, the Management Portal will come up. Note, this has the same menu components as you would see in the TU / BDU Management Portal. (Refer to Figure 2-7)

- Dial Tab Button – When selected, the phone key pad will be displayed. Telephone calls are made from this screen. (Refer to Figure 3-1)

- Settings Tab Button – Provides information relating accounts (existing and new) and preferences (configure Management Portal name and password, setting up the Emergency call number) (Refer to Figure 2-9)

- Emergency Tab Button – Selecting this tab will open the Emergency Call screen. (Refer to Figure 3-6)

Link Application – Settings

From the Link Application, the SETTINGS Button allows you to:

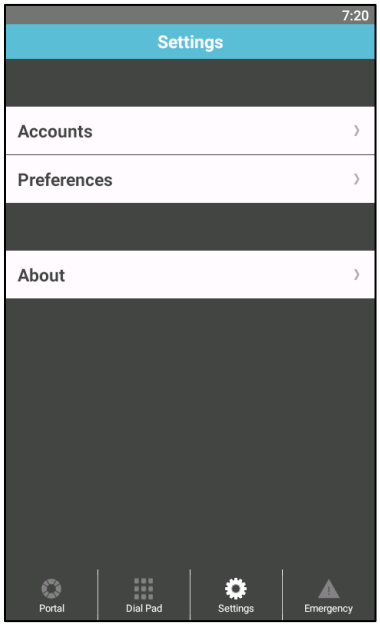


Figure 2-10 LINK Application - Settings

Table 2-4 LINK Application Settings Buttons

Section	Parameters
Accounts	
Existing Account	Provides information relating to an existing account already setup in the handset. Information includes: • General Information – Account label, enable the use of mobile data, and enable/disable the account • User Details – Name of the device, username and Domain (Default to sip.thaleslink) • Authentication – username and password.
New Account	Allows a new account to be established • General information – enter the new account name, enable the use of mobile data, and enable/disable the account • User details – enter the Display Name, Username, and Domain • Authentication – enter the username and password
Preferences	
Link Settings	Allows you to configure the Management Portal Username and Password and to enable Emergency Operation and configure the Emergency call number.

Section	Parameters
Audio Codecs	Provides information relating to Mobile Data Audio Codecs and Wi-Fi Audio Codecs. (*Information only*)
About	
About	Displays current version information

CHAPTER 3 OPERATION

SURELINK HANDSET OPERATION

The Thales SureLINK Handset operates on an Android operating system that has been customized for the Handset operation. Many of the standard Android features and configuration items have been removed, as they are not applicable to the Handset operation.

Points to remember:

- If the default configuration of the terminal has changed, the Handset extensions must be configured to match one of the Inbound Iridium Lines found in the Management Portal in SETTINGS ➔ PHONE.

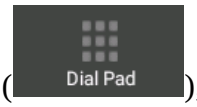
- If the default configuration of the terminal has not changed, the Handset is set up to operate on Extension 1002 using the Iridium phone number corresponding to that extension.

- The Android device IP address can be found by selecting the SETTINGS icon (not within the LINK Application), then select ABOUT HANDSET

- To reboot the handset, press and hold the MENU and BACK buttons simultaneously for more than 6 seconds or simply unplug the handset from the terminal/BDU and plug it back in.

Making a Call

To make a call over the satellite network,

1. Select the Dial Pad icon (

), the Dial Pad screen will appear.

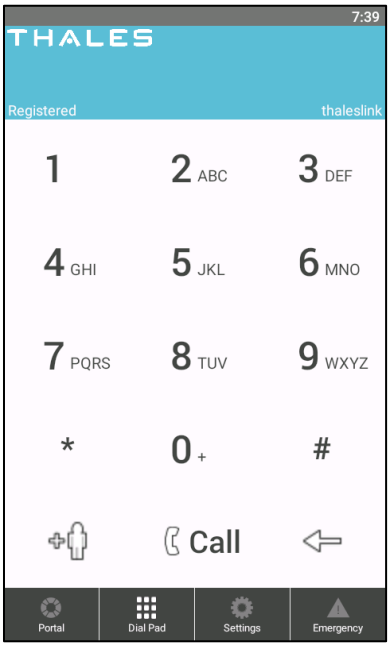


Figure 3-1 Thales Handset Dial Pad Screen

2. Dial 9 first and then the number to be called and press Call.

   Once connected, if speakerphone mode is desired, follow instructions on the screen to first enable the keypad and then select speaker. You can also bring up the keypad, mute the Handset, put the call on hold or add a caller.

Figure 3-2 Handset Call Screen

NOTE

To change the volume, press and hold the volume button to increase volume and press and release sequentially to reduce the volume.

NOTE

To make a local call using the PBX, dial the extension you want to call (without the 9 first).

Receiving a Call

To receive a call from a caller over the satellite network, the caller would dial the Iridium number that the Handset is mapped to. Select Answer when the Handset Rings.

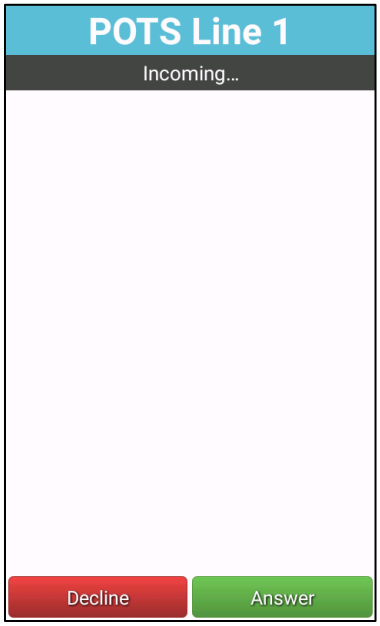


Figure 3-3 Incoming Call Screen (Example)

Once connected, if speakerphone mode is desired, select the SPEAKER icon. You can also bring up the keypad, mute the Handset, put the call on hold or add a caller. (Refer to Figure 3-2)

NOTE

To change the volume, press and hold the volume button to increase volume and press and release sequentially to reduce the volume.

Making an Emergency Call

An Emergency Call can be made in two ways; either by selecting the Emergency Icon in the LINK Application or by pressing and holding the Emergency Button at the top of the Handset.

Before either of these methods is used, the call number must first be configured. To do this:

1. First select the SETTINGS icon (not within the LINK Application). Select HANDSET PROPERTIES and select EMERGENCY CALL to enable. It will turn green when enabled. It is gray when disabled.

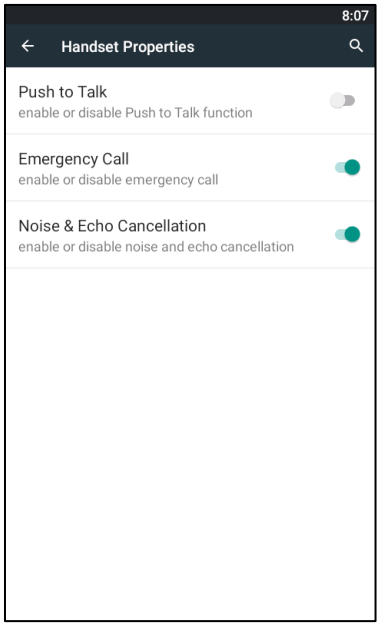


Figure 3-4 Enable Emergency Call (Shown Enabled)

2. Within the LINK application, select the SETTINGS icon, then PREFERENCES, then CONFIGURE.

3. To configure the Emergency Number, select EMERGENCY NUMBER. A keypad will be displayed. Enter the number (including 9) that you want to call when in an Emergency. (Note – to remove the keypad, press the left Android button.)

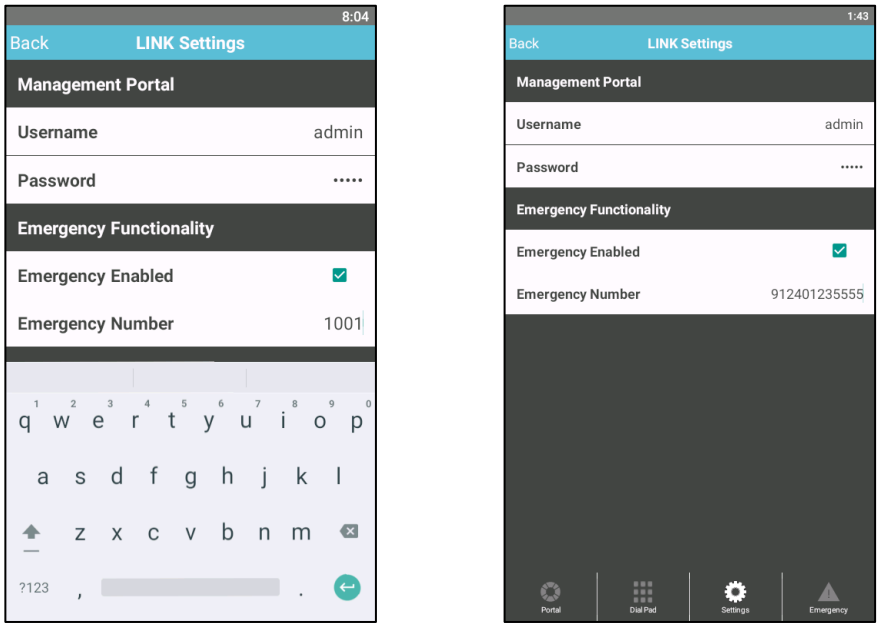


Figure 3-5 Enter the Emergency Number

4. Exit by pressing either the Left Android button or the HOME button.

Method 1 – Press and Hold the red Distress button on the top of the Handset. The Emergency Call sequence will initiate. A red CANCEL button appears on the screen with a 5-second countdown. Press CANCEL if the call needs to be canceled. Emergency call will be initiated after 5 seconds if not canceled.

Method 2 – Within the LINK application, select the EMERGENCY icon. Press the Green button on the screen; SEND EMERGENCY SIGNAL. A red CANCEL button appears on the screen with a 5-second countdown. Press CANCEL if the call needs to be canceled. Emergency call will be initiated after 5 seconds if not canceled.

NOTE

If Emergency has not been enabled in the Settings and the Emergency button is pressed and held, the Emergency screen will appear and a message will appear asking if Emergency should be enabled. If YES is selected, the Emergency sequence will begin.

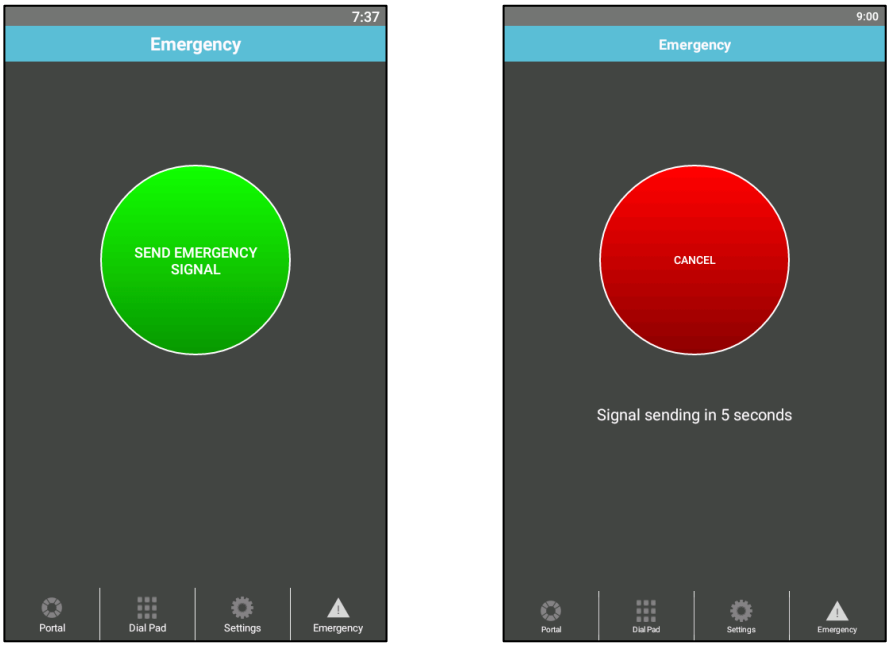


Figure 3-6 Emergency

NOTE

If no phone number has not been set up on the Handset but Emergency is enabled, the Distress call uses the email address that is set up in the Management Portal if one has been set-up. It also sends out the current location coordinates.

MANAGEMENT PORTAL

The LINK application can be used to configure and monitor the MissionLINK and VesseLINK systems through the Management Portal.

NOTE

The user name and password must be correct in the LINK Settings icon.

To access the Management portal within the LINK application, select the PORTAL icon. It may take a minute to load. Make sure to Login to access Settings and other protected Admin data. All Management Portal functionality is described in detail in the User Manual.

CHAPTER 4 TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS

Table 4-1 Technical Specifications

Category	Technical Specification
Operating Temperature	-20°C to +55°C
Regulatory	FCC Part 15 Class B, EN61000-4
Humidity	95% at 40°C
Audio Level (loud speaker)	>90 db SPL
Power Required	POE < 6.5 watts
Display	4” diagonal, 480 x 800 pixels
Vibration	MIL-STD-810G
Ingress Protection	IP65
Size/Weight	5”L x 3”W x 1”D, 10.5 oz

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CHAPTER 5 ACRONYMS

ACRONYMS

Table 5-1 List of Acronyms

Acronym	Description
AC	Alternating Current
API	Application Programming Interface
BAA	Broadband Active Antenna
BAE	Broadband Application Electronics
BCX	Broadband Core Transceiver
BIT	Built In Test
DC	Direct Current
DHCP	Dynamic Host Configuration Protocol
DTMF	Dual Tone Multi-Frequency
EBB	Enhanced Broadband
ETSI	European Telecommunications Standards Institute
GPIO	General Purpose Inputs/Outputs
GPS	Global Positioning System
HGA	High Gain Antenna
HRLP	High Speed Radio Link Protocol
HTTP	Hypertext Transfer Protocol
ICMP	Internet Control Message Protocol
IP	Internet Protocol
ITU	International Telecommunications Union
LAN	Local Area Network
LED	Light Emitting Diode
LEO	Low Earth Orbiting
LGA	Low Gain Antenna
LOS	Line of Site
MO	Mobile Originated
msec	Milliseconds
MT	Mobile Terminated
NAS	Network Attached Storage
PBX	Private Branch Exchange
PCM	Pulse Code Modulation
PoE	Power Over Ethernet
POST	Power On Self-Test
POTS	Plain Old Telephone Service
PSTN	Public Switched Telephone Network
PTT	Push To Talk
QSG	Quick Start Guide
R/W	Read/Write
RF	Radio Frequency

Acronym	Description
RGW	Radio Gate Way
SBC	Smart Battery Charger
SIM	Subscriber Identity Module
SIP	Session Initiation Protocol
SMBus	System Management Bus
SV	Satellite Vehicle
TCP	Transmission Control Protocol
TDSI	Thales Defense & Security, Inc.
TLS	Transport Layer Security
TU	Terminal Unit
UDP	User Datagram Protocol
UL/DL	Uplink/Downlink
VAD	Voice Activity Detection
VLAN	Virtual Local Area Network
VoIP	Voice of Internet Protocol
WAN	Wide Area Network
Wi-Fi	Wireless Network
WPA2-PSK	Wi-Fi Protected Access 2 – Pre-Shared Key

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