SPACE 42

IP HANDSET

User manual

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Safety Summary

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 manual violates safety standards of design, manufacture and intended use of the equipment. Thrane & Thrane A/S assumes no liability for the customer's failure to comply with these requirements.

DO NOT OPERATE IN AN EXPLOSIVE ATMOSPHERE

Do not operate the Space42 IP Handset in the presence of flammable gases or fumes. Operation of any electrical equipment in such an environment constitutes a definite safety hazard.

KEEP AWAY FROM LIVE CIRCUITS

Operating personnel must not remove equipment covers. Component replacement and internal adjustment must be made by qualified maintenance personnel. Do not replace components with the cable connected. Always disconnect power and discharge circuits before touching them.

DISPOSAL

Old electrical and electronic equipment marked with this symbol can contain substances hazardous to human beings and the environment. Never dispose these items together with unsorted municipal waste (household waste). In order to protect the environment and ensure the correct recycling of old equipment as well as the re-utilization of individual components, use either public collection or private collection by the local distributor of old electrical and electronic equipment marked with this symbol.

Contact the local distributor for information about what type of return system to use.

About the Manual

Intended readers

This manual is a user manual for the Space42 IP Handset. The readers of the manual include anyone who is using or intends to use the Space42 IP Handset. No specific skills are required to operate the Space42 IP Handset. However, it is important that you observe all safety requirements listed in the beginning of this manual, and operate the handset according to the guidelines in this manual.

Manual overview

This manual has the following chapters:

- *Introduction* contains an overview and a brief description of the Space42 IP Handset.
- *Getting started* explains how to connect and start up the handset and gives an overview of the display and keypad. It also contains a short guide to initial configuration and to making the first call.
- *Using the Space42 IP Handset* describes how to use and configure the handset and explains the display menus.
- *Service & maintenance* contains guidelines for maintenance of the handset, a short troubleshooting guide and gives information on where to get further help if needed.

This manual may not always reflect the latest software functionality of your Space42 IP Handset. To obtain the latest version of the manual, go to www.cobhamsatcom.com, enter the **Partner Portal** and download the latest version, or acquire it from your distributor.

Related documents

The following related documentation is referred to in this manual:

Title	Document number
Space42 IP Handset Quick guide	98-188256
IP NEO M User manual	98-188247
IP NEO C User manual	98-188239
Mobile Gateway M NEO User & installation manual	98-188253
Mobile Gateway C NEO User & installation manual	98-188251
Voyager NEO User & installation manual	98-188241
Commander NEO User & installation manual	98-188249
Orion NEO User & installation manual	98-188243

Typography

In this manual, typography is used as indicated below:
Bold is used for the following purposes:

- To emphasize words.
  Example: “Do **not** replace components”.
- To indicate what the user should select in the user interface.
  Example: “Select **SETTINGS** › **Display**”.

Italic is used to emphasize the paragraph title in cross-references.
Example: “For further information, see *Connecting Cables* on page...”.

Table of Contents

Introduction

1.1 Your Space42 IP Handset

1.1.1 Functions

The Space42 IP Handset is a wired Voice-over-IP handset providing telephony and PTT functionality.

The handset adds Voice-over-IP telephony services and PTT functionality to the Space42/Thuraya NEO satellite terminals.

The Space42 IP Handset supports PTT when connected to the IP NEO M or the IP NEO C terminals. These terminals have the PRISM Lite functionality embedded in their software, enabling the satellite terminal to act as a PTT client and support interagency talk-groups and secure AES256 encrypted voice communication over satellite.

Full PRISM PTT+ functionality supporting satellite/LTE/LAN backhaul and Maritime / Land Mobile Radio integration requires a Mobile Gateway M NEO or Mobile gateway C NEO.

The Space42 IP Handset is powered directly from the LAN interface using Power over Ethernet (PoE), which eliminates the need for an external power supply.

The Space42 IP Handset connects directly to the following units:

- IP NEO C portable satellite terminal
- IP NEO M portable satellite terminal
- Mobile Gateway C NEO
- Mobile Gateway M NEO

It also connects via a PoE switch or a Mobile Gateway M/C NEO to other satellite terminals, such as:

- Voyager NEO vehicular satellite terminal
- Commander NEO vehicular satellite terminal
- Orion NEO maritime satellite terminal

1.1.2 Services

- VoIP (PSTN) service:
  The handset registers with SIP/RTP to the SIP server in the terminal to which it is connected. E.g., the handset could be connected to an IP NEO M terminal and provide access to the VoIP service in the terminal.

  Note | VoIP service is only available when connected to T4-NGS network.

- PTT service:
  The handset registers with SIP/RTP to the PRISM PTT service in one of the IP NEO M/C satellite terminals (using PRISM Lite) or one of the Mobile Gateway M/C NEO terminals (using PRISM) for providing PTT call group service.

1.2 Features

The Space42 IP Handset can operate in different modes and offer different services depending on the devices it is connected to, as well as on the configuration in both handset and PRISM/PTT system. The handset will auto-detect the capabilities of the system to which it is connected and present only the features available. The handset can operate as:

- IP Telephony handset only
- IP Telephony and PTT handset
- PTT handset only

The Space42 IP Handset offers the following features:

- Voice-over-IP handset with PTT functionality.
- Plain voice communication (PSTN) over Internet or IP based network.[1]
- Powered by PoE.
- RJ-45 male connector on coil cord.
- PTT button on the side.
- Connects directly to IP NEO M/C satellite terminals and Mobile Gateway M/C NEO, which can also supply PoE power for the handset.
- Management of PTT service in PRISM Portal, identical to that of the Mobile Gateway M/C NEO.
- Languages supported in the display menus: Arabic, Bahasa, Chinese, English, French, German, Japanese, Portuguese, Russian, Spanish and Tagalog.

1. Only available with T4-NGS.

Getting started

This chapter describes how to install and start up the Space42 IP Handset and make the first call. It also gives an overview of the display and keypad and explains how to navigate with the keypad.

2.1 Get started with the Space42 IP Handset

The Space42 IP Handset connects with a coil cord to a LAN port with PoE. For example, in a satellite terminal such as the IP NEO M terminal, the Space42 IP Handset is powered directly from the LAN (PoE) interface.

2.1.1 Handset cradle

The Space42 IP Handset comes with a small bracket or cradle that allows you to hang the handset on a wall.

1. Mount the cradle with two screws into the mounting surface.
   The opening of the holder must face upwards as shown.
2. Place the handset in the cradle, guiding the knob into the dedicated opening in the cradle.

2.1.2 Connect the Space42 IP Handset to a satellite terminal

Note The LAN interface to which the handset is connected must supply Power over Ethernet. The IP NEO M/C terminals and the Mobile Gateway M/C NEO terminals all have LAN PoE interfaces that can supply PoE.

To connect the Space42 IP Handset to a satellite terminal:

1. Start up the satellite terminal as described in the user manual for the terminal.
2. Connect the coil cord (Ethernet) from the Space42 IP Handset to a LAN connector supplying PoE on the satellite terminal.[1]

Note If you insert a switch or similar between the Space42 IP Handset and the terminal, make sure that it conforms to the industry PoE+ standard 802.3at Type 1 (mode A or B).

The Space42 IP Handset starts up automatically when connected to the satellite terminal. However, you may have to configure user name and password if the handset has not been connected before, and if it is not set up to automatically connect with the SIP server of the terminal. For further information, see *Establish a phone connection using satellite terminal* on page 2-5.

1. If you want to connect to another satellite terminal such as the Voyager NEO, Commander NEO or Orion NEO, you must either connect a Mobile Gateway M/C NEO (described in the next section) or a switch between the handset and the satellite terminal..

2.1.3 Connect the Space42 IP Handset to a Mobile Gateway M/C NEO

Connect your Space42 IP Handset to LAN2 PoE or LAN3 PoE on the Mobile Gateway M/C NEO.

Note Your system must be connected to the T4-NGS satellite network (e.g., via a satellite terminal connected to the Mobile Gateway M/C NEO) in order to be able to use the handset as a phone with the Mobile Gateway M/C NEO.

For phone connection, set up the handset and the satellite terminal as described in the previous section *Connect the Space42 IP Handset to a satellite terminal*.

For PTT connection, set up the handset in the PTT menu to match the PTT system, which is configured in the PRISM PTT+ Portal. See *PTT function for Space42 IP Handset* on page 3-5 and *PTT setup* on page 3-10.

2.1.4 Start up the Space42 IP Handset

To switch on the Space42 IP Handset

The Space42 IP Handset is automatically powered when it is connected to a LAN interface with PoE.

If the handset has been switched off, you can switch it back on by pressing and holding the on hook key until the display lights up.

If the handset does not start up, the reason may be that there is no PoE in the LAN interface. If you are connecting to a satellite terminal, check that you are connecting to the right LAN interface with PoE, and that PoE is enabled in the satellite terminal. For further information, refer to the manual for the satellite terminal.

To switch off the Space42 IP Handset, press and hold the on hook key again until the display is turned off.

2.2 Establish a phone connection using satellite terminal

Note VoIP telephony over satellite is only possible when connected to T4-NGS network.
PTT is available when connected to T2, T3 or T4-NGS network.

2.2.1 To use a satellite terminal

Introduction

By connecting the Space42 IP Handset to a Space42 NEO satellite terminal you gain access to the satellite network with your Space42 IP Handset.

When connected with the satellite terminal, directly or through an Mobile Gateway M/C NEO, the Space42 IP Handset provides a dedicated menu for the terminal.

Space42 IP Handset connection

The Space42 IP Handset is connected to the satellite terminal with the coil cord (Ethernet) to one of the LAN ports of the terminal. For further information, see *Connect the Space42 IP Handset to a satellite terminal* on page 2-2.

2.2.2 To establish a connection

When the handset is connected to the satellite terminal, it is automatically registered in the terminal and assigned the first available local number, if the startup option **AUTO CONNECT DEFAULT SIP** is selected under **SETTINGS** › **Start up options** in the handset menu (disabled by default).

If you need another password or local number, you must **disable AUTO CONNECT DEFAULT SIP** (or change the default SIP profile, see *To edit a SIP profile* on page 3-12) and set up the following in the handset and in the web interface of the satellite terminal:

- User name
- Password
- Local number

For further information, see *Change user name and password for the Space42 IP Handset* on page 2-6.

If no SIM PIN is required for the satellite terminal

If the Space42 IP Handset is connected to a satellite terminal where the SIM PIN is disabled or has already been entered, the satellite terminal automatically sets up a communication profile (SIP profile) and assigns the first available local number to the handset, if the startup option **AUTO CONNECT DEFAULT SIP** is enabled under **SETTINGS** › **Start up options** in the handset menu.

If a SIM PIN is required for the satellite terminal

Note There may be 2 PIN codes for the system:

- one for the satellite terminal (SIM PIN, described in this section) and
- one for the Space42 IP Handset (described in *To set up the PIN code for the handset:* on page 3-9)

If the Space42 IP Handset is connected to a satellite terminal where the SIM PIN is required and has not yet been entered, you need to enter the SIM PIN for the terminal. To do so, you need to know the Administrator user name and password as well as the SIM PIN for the satellite terminal.

To enter the satellite terminal's SIM PIN:

1. From the Home screen of the handset, select  to enter the menu system.
2. Select **TERMINAL**.
3. Select **Setup**.

> **Note** You can check at **TERMINAL** › **Status** › **PIN status** to see if the PIN has been accepted.

4. Enter the IP address of the terminal (default address is 192.168.0.1).
5. Enter the Administrator user name and select **ACCEPT**.
   For information on how to type text in the handset, see *How to enter text in the Space42 IP Handset* on page 3-2.
6. Enter the Administrator password and select **ACCEPT**.
7. Enter the SIM PIN and select **ACCEPT.**
   If the SIM PIN is rejected, see the next section *Wrong PIN*.

When the PIN is accepted, the satellite terminal automatically sets up a SIP profile and assigns the first available local number to the handset, if the startup option **AUTO CONNECT DEFAULT SIP** is enabled under **SETTINGS** › **Start up options** in the handset menu.

Wrong PIN

After entering the user name and password, you have 3 attempts to enter the PIN, before you are asked to enter the PUK (Pin Unblocking Key). The PUK is supplied with your satellite SIM card. Enter the PUK followed by a new PIN of your own choice. The PIN must be from 4 to 8 digits long.

CAUTION! If you enter a wrong PUK 10 times, the SIM card will no longer be functional, and you have to contact your Airtime Provider for a new SIM card.

Space42 IP Handset ready

When the display shows the handset ready symbol  in the upper left corner, the handset is ready for making a call.

If the handset ready symbol is crossed out you cannot make a call. The display will normally show a message explaining why the handset is not ready.

2.2.3 Change user name and password for the Space42 IP Handset

If the startup option **AUTO CONNECT DEFAULT SIP** is **disabled** under **SETTINGS** › **Startup options** in the handset menu[1], the user name and password must be set up in the handset and connected satellite terminal before you can use the handset with the satellite terminal.

You need to set up the user name, password and local number in two places:

- In the Space42 IP Handset
- In the web interface of the satellite terminal.

1. If **AUTO CONNECT DEFAULT SIP** is enabled, a Space42 IP Handset that is connected to the terminal automatically gets the first available user name (local number) and password.

To change user name and password in the Space42 IP Handset

To enter new user name and password in the Space42 IP Handset:

1. Start up the handset as described in the previous sections.
2. Enter the menu system and select **PHONE** › **SIP**.
3. Move to the profile and select **Options**.
4. Select **View/Edit**.
5. Select **USER NAME** and enter the user name for your handset. Note that the user name must be the same as the local number for your handset when using the satellite terminal. Available numbers are 0501 to 0516.
6. Select **PASSWORD** and enter the password for your handset. Note this password for later use in the terminal.

   Note The Space42 IP Handset only supports numbers (no letters) in the password.

7. Exit the menu.

To enter the handset's user name and password in the satellite terminal

To match the Space42 IP Handset with the satellite terminal you must enter the local number and password for each Space42 IP Handset in the web interface of the satellite terminal.

To set up the satellite terminal:

1. Connect a computer to the LAN interface of the satellite terminal and start up your browser.
2. In the address bar, enter the IP address for the satellite terminal. The default IP address is 192.168.0.1.
   The web interface opens.
3. Select (Control panel) › **IP handsets**.
4. Locate the local number that matches the user name (local number) of your handset and click **Edit**.
5. Enter the same password you entered in the handset.

2.3 Make the first call (Only with T4-NGS)

To make a call:

1. Type the phone number on the keypad.
   If the number is in the Contacts list of the handset, you can also select the number from there.
2. Press the off hook key in the left side of the keypad .
   The display shows that the number is being dialed.
3. **Volume up or down:** If you need to adjust the voice volume during a call and the display shows the Home screen, press ▲ or ▼ on the keypad.

For further information on how to make calls, see *Handle calls (only with T4-NGS)* on page 3-3.

2.4 Space42 IP Handset buttons, keypad and display

The Space42 IP Handset has the following user interfaces:

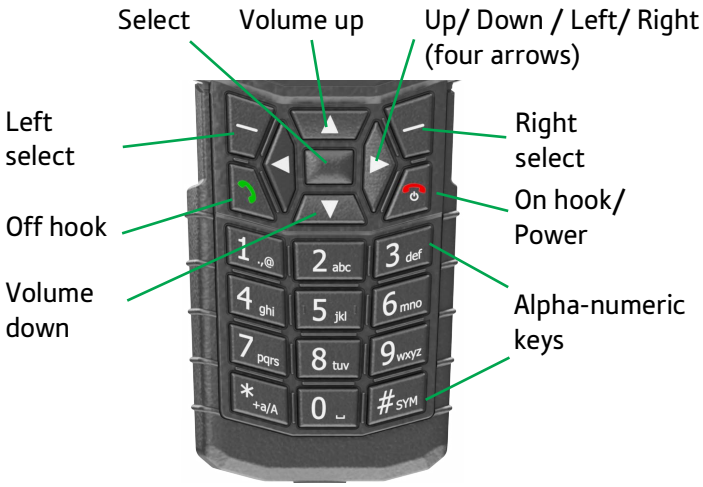
2.4.1 Buttons on the Space42 IP Handset

The Space42 IP Handset has the following push-buttons on the side and back of the handset:

- Stealth button: Puts the handset in Stealth mode. Stealth mode turns off all lights and sounds in the handset. While in Stealth mode, a short push will toggle between display off and silent night mode (note that the handset remains in Stealth mode, only the display toggles between off and night colors). Push and hold will exit Stealth mode.
  See also *To use stealth mode* on page 3-1.
- Lock button: Locks the keypad. When the keypad is locked you can still answer incoming calls. To unlock, push and hold the Lock button. See also *To lock/unlock the keypad* on page 3-1.
- **PTT** button: Push to talk when the Space42 IP Handset is in PTT mode and the PTT system is set up and ready. See also *Space42 IP Handset menus* on page 3-6.
- Emergency button (only for PTT): If an emergency recipient is configured in the PRISM server, a push on this button will invoke an emergency message/call as configured in the PRISM server.

2.4.2 The keypad

The following drawing shows the keypad of the handset.



The next sections explain the functions of each key in the keypad.

Control keys

The below table shows the functions of the control keys in the upper section of the keypad.

Key	Functions
	Left select. Selects the function shown in the display just above the key (left soft key).
	Right select. Selects the function shown in the display just above the key (right soft key). From Home screen: Opens the Contacts list.
	Off hook. After entering a phone number: Initiates a call to the number. From Home screen: Opens a list of the latest calls, including incoming, outgoing and missed calls.
	On hook/ Power. When the handset is ringing: Rejects the call. During a call: Ends the call. When in the menu system: Abandons the menu system and displays the Home screen. Otherwise: Powers the handset on/off, when pressed and held for 3 seconds. If there is an error and the handset does not power off after approximately 3 seconds, hold the key for 10 seconds, and the handset will perform a hardware reset.

Key	Functions
	Select (center). Selects/confirms the function highlighted in the display.
▲ ◀ ▶ ▼	Navigation. Navigates through the menu system in the display. Right/Left are also used to change settings in the menus. From Home screen: ▲ Volume up, ▼ down See also *Keypad shortcuts* on page 2-12.

Alpha-numeric keys

Note **On-screen keyboard**: Instead of using the alpha-numeric keys, you can use the on-screen keyboard, which is adapted to the selected language. For details, see *On-screen keyboard* on page 3-2

This section shows an overview of the alpha-numeric keys in the lower section of the keypad.

See also *How to enter text in the Space42 IP Handset.*

At numerous presses on the same key, the character changes in the same sequence that the characters are listed in the following table (and in the keypad).

CAPITAL LETTERS: To switch the latest entered letter to uppercase, push and hold * until the character changes to uppercase (capital letter).

Key	Output
1	1 . , @
2	2 a b c
3	3 d e f
4	4 g h i
5	5 j k l
6	6 m n o
7	7 p q r s
8	8 t u v
9	9 w x y z
0	0 [space]
*	* + (push and hold changes the latest entered letter to uppercase)
#	# . , @ ? ! : ; - + = ' " % & / ( ) [ ]

To navigate with the keypad

To enter the menu system from the Home screen, press the center select key.

To move through the menus, press the navigation keys (arrows).

To select a highlighted menu item, press the center select key.

Keypad shortcuts

The following shortcuts are available:

Shortcut	Function
▼	When the display is in the Home screen, this key (arrow down) gives direct access to the list of contacts.
	When the display is in the Home screen, this key opens a list of the latest incoming, outgoing and missed calls.
	When the display is in the menu system, the on hook key will exit the menu system and show the Home screen.
	When the display is in the Home screen, the right select key will open the list of contacts. From inside the Contacts list, press the first letter of an entry to access the entry in the Contacts list.
Alpha-numeric keys	When the display is in the menu system, an alpha-numeric key will jump to the menu item with the pressed number or, in the Contacts list, to the first entry beginning with the pressed letter.
	When in a text field, push and hold the **1** key to toggle the on-screen keyboard on/off.

2.4.3 The display

The display of the Space42 IP Handset is divided into sections with different types of information. The sections are outlined below.

Satellite signal status

When the Space42 IP Handset is connected to a satellite terminal, the display shows the signal strength of the satellite signal.

Time

The display can show the time of day.

The format is selectable in the **SETTINGS** › **Date and time** menu.

Status icons

Status icons show dynamic information such as missed calls, Stealth mode, battery level of satellite terminal, warnings and alarms.

For explanations of the icons, see *Icons in the display* on page 2-14.

Main display area

The main display area primarily displays the menus and messages to the user.

Action texts area

The action texts are used to indicate an action that takes place when the corresponding key is pressed. The corresponding key is the key directly below the text (left select, center select or right select).

Icons in the display

The below table explains the icons in your display.

Icon	Meaning
	Signal strength for satellite terminal.
	Alive indicator (the handset is on and responsive).
	The handset is ready for making calls (SIP registered).
	The handset is not ready for making calls (not SIP registered).
	Active warning from satellite terminal. Active alarm from satellite terminal.
	Battery status (many variants).
	Call in progress.
	Missed call. See the Call log for information on the call.
	Stealth mode. No sound and no incoming calls. Display is off or in night colors (toggle with Stealth button, short push).

Screensaver

You can choose to have a screensaver activated when the handset is not used for one minute. This screen shows only the time, handset status and general indications such as missed calls.

When you press a key the display returns to the normal display function.

To enable or disable the screensaver, enter the menu system, select **SETTINGS** › **Display** and select **Screensaver**. When the box is checked, the screensaver is enabled.

Note If you have a PIN code for your handset, you must enter the PIN code to gain access to the handset when the screensaver is on.

Using the Space42 IP Handset

This chapter describes how to use the Space42 IP Handset. It also describes how to configure the handset and use the display menu system, including a short description of how to use the Space42 IP Handset with a satellite terminal.

For information on how to connect and start up the handset, and how to navigate with the keypad, refer to the previous chapter, *Getting started*.

3.1 User interface

The user interface for the handset is the display menu system.

The display menu system is described in *Space42 IP Handset menus* on page 3-6.
For an overview of the keys and display, and explanation of keys and display symbols, see *Space42 IP Handset buttons, keypad and display* on page 2-8.

3.2 Space42 IP Handset functions

3.2.1 Quick settings

To control the volume in the earpiece

To adjust the volume during a call (with display in Home screen), press ▲ or ▼ on the keypad.

To lock/unlock the keypad

You can lock the keypad of the Space42 IP Handset using the lock button on the side of the handset. When the keypad is locked you can still answer incoming calls.

- To **lock** the keypad, push the lock button.
- To **unlock** the keypad, push and hold the lock button.

To use stealth mode

Stealth mode is used when the Space42 IP Handset should not be noticed. In stealth mode you turn off all lights and sounds in the handset. No incoming calls are received, but you can still make a call (voice or PTT) from the handset.

- To **activate** stealth mode, push the Stealth button on the side of the handset .
- In Stealth mode, **toggle** between **no light** and **silent night mode** (dim light, red color) in the display, by pushing the Stealth button briefly.

  Note The handset **remains in Stealth mode** - only the display toggles between no light and night colors.

- To **exit** Stealth mode, push and hold the Stealth button until the display lights up.

3.2.2 How to enter text in the Space42 IP Handset

On-screen keyboard

You can use the on-screen keyboard, which supports the different language versions available in the display.

To **toggle** the on-screen keyboard on/off, **push and hold the "1" key.**

To **type text**, navigate to the letter with the arrow keys and select the letter with the center select key.

To **enter the text** you just typed, select → in the bottom of the on-screen keyboard.

To use the **on-screen keyboard by default**, select **SETTINGS > Display > SHOW KEYBOARD** from the handset main menu.

Alpha-numeric keys

When entering your contacts in the Space42 IP Handset you can use the keypad to enter the names.

Press the alpha-numeric key and press and hold ***** to switch to upper case in the letter you just typed.

There are 3 or 4 letters on each key. To obtain the next letter on the key, press the key again.

To move the cursor in the text, use the arrow keys.

To delete the letter just before the cursor, press the right select key **Delete**.

For a list of the key-functions, see the table on page 2-11.

Example: To type "He":

1. Press the key **4 ghi** three times to display the letter **h**.
2. Press and hold * until the **h** changes to upper case letters (**H**).
3. Press the key **3 def** three times to display the letter **e**.

3.2.3 Contacts

Use the contact list of the Space42 IP Handset to find a contact and make a call or manage your contacts.

To display your contacts

To display your contacts, press the right select key (CONTACTS).
If you are using the Space42 IP Handset both as a phone and as a PTT handset, select the contacts list you want to see.

- **PTT** shows call groups and contacts for PTT.
- **Phone** shows a handset contact list.

To call a contact

To call a contact:

1. In your Contacts list, scroll to the contact you want to call.
2. Press the off hook key.

To add a contact

To add a contact:

1. In your Contacts menu, select **Add new**. Note that the Contacts list can hold maximum 100 entries.
2. Type in the **Name** of your contact and enter with the arrow key in the bottom right corner of the on-screen keyboard.
   The name can be maximum 32 characters. For information on how to enter text, see *How to enter text in the Space42 IP Handset* on page 3-2.
3. Scroll to **Surname** and enter the surname.
4. Scroll to **Number** and enter the phone number of your contact.
   The number can be maximum 32 characters.
5. Select **ACCEPT**.

To edit a contact

To edit a contact:

1. In your Contacts list, scroll to the contact you want to edit and select **VIEW**.
2. Select **Edit**.
3. Change the name or number your contact as described above (*To add a contact*) and select **ACCEPT**.

To delete a contact

To delete a contact:

1. In your Contacts list, scroll to the contact you want to delete and select **VIEW**.
2. Select **Delete contact** and confirm.

The contact is now deleted from your Contacts list.

3.2.4 Handle calls (only with T4-NGS)

Handset ready

When the status field for the Space42 IP Handset shows ready , you can make or receive calls.

To make a call

To make a call, simply type the phone number and press .

The display shows the progress.

You can also call a number from your contacts or from a list of recent calls:

- **Contacts**: Press the right select key from the Home screen and move to the contact you want to call. Then press the off hook key.
- **Recent calls**: To see the latest calls (incoming, outgoing and missed calls), select **PHONE** > **Call log** and select the number you want to call. Press to call the selected number.

For information on how to make calls using a satellite terminal, see *Make a call using a satellite terminal* on page 3-4.

To receive a call

When the handset is ringing, the display shows the calling name or number, if known.

Answer the call by pressing the off hook key in the left side of the keypad .

Any open menus are closed down when the handset is ringing.

You can see unanswered calls under **Call log** in the Space42 IP Handset menus.

To end or reject a call

Press the on hook key to end an ongoing call or to reject an incoming call.

3.2.5 Make a call using a satellite terminal

When making a call with the Space42 IP Handset using a satellite terminal you use the satellite network and its functionality.

To make a call from a handset connected to a satellite terminal

To make a call from a phone or handset connected to a satellite terminal, dial

00 <country code> <phone number> followed by .

Example: To call the number +45 39558800,
dial **00 45 39558800** followed by .

To make a call to a handset connected to a satellite terminal

Note By default all handsets connected to the terminal will ring on incoming calls.

To make a call to a handset connected to the satellite terminal, dial

+ <Mobile number>

- **+** is the prefix used in front of the country code for international calls. This is **00** when calling from most countries.
- **Mobile number**: The mobile number of the satellite terminal you are calling.

To see the mobile number of your satellite terminal, refer to the information included with your airtime subscription.

3.2.6 PTT function for Space42 IP Handset

When PTT is selected in the display menu, and the Space42 IP Handset is connected to an IP NEO M/C terminal or a Mobile Gateway M/C NEO in a PTT system, it can be used as a PTT handset.

To prepare the Space42 IP Handset for PTT, set up the system in the PRISM PTT+ Portal and select and set up PTT in the handset PTT menu (only available when connected to at PTT system). For details, see *PTT setup* on page 3-10.

To use the PTT function

After setting up PTT in the handset and in the PRISM PTT+ Portal, you are ready to use your PTT system.

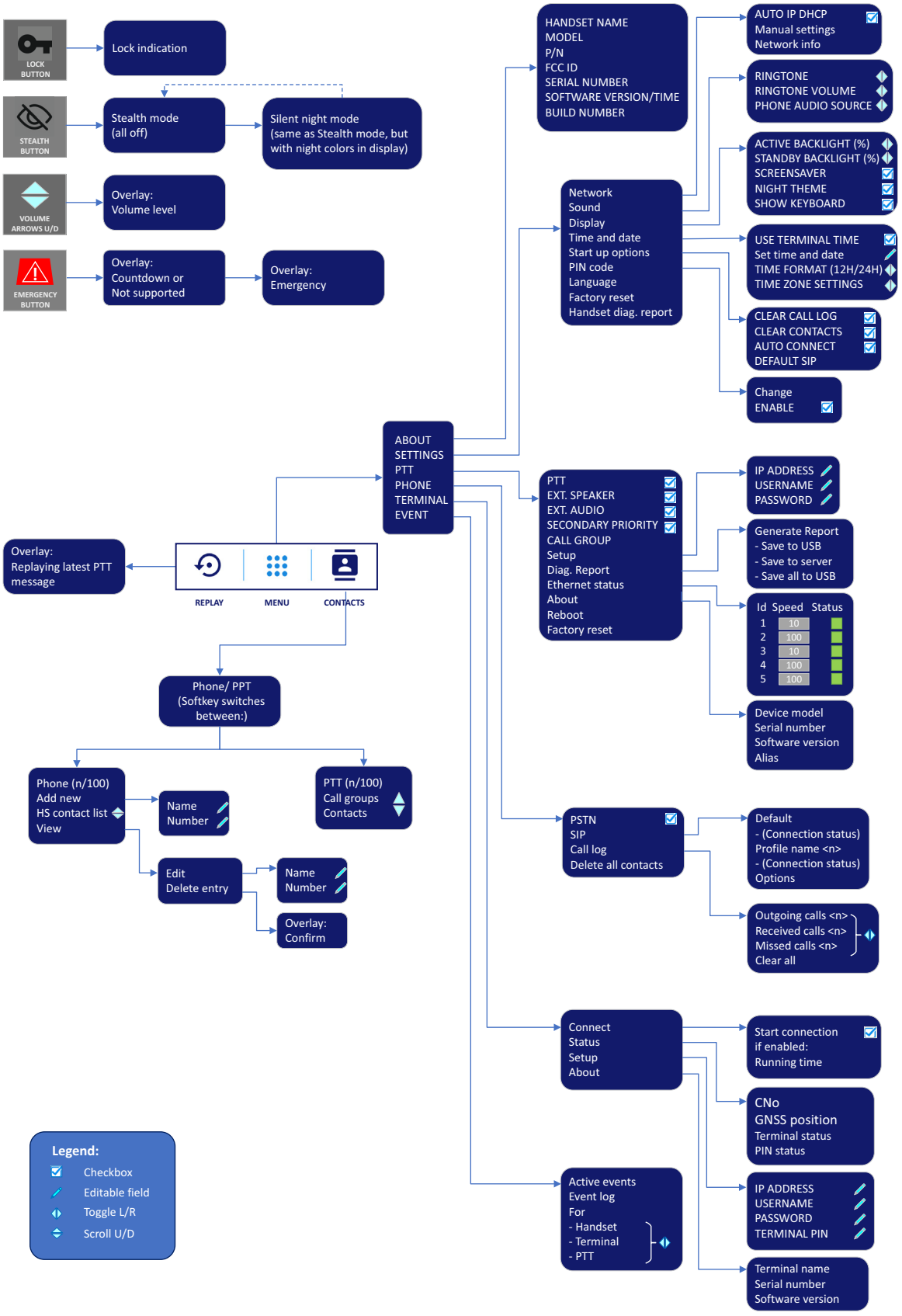
Call groups and contacts: During PTT system setup, the PTT call groups and contacts are automatically pushed to the handset from the PRISM server of the PTT system. The call groups and contacts can be viewed and used for calls, but cannot be edited from the handset.

To talk in the PTT handset, push and hold the PTT button on the side of the handset while you talk. Release the button to listen.

To replay the last PTT message received, from the Home screen use the left-select button to select  (Replay).

3.3 Space42 IP Handset menus

To access the menu system from the Home screen, select **MENU** with the center select key. The menu system gives you access to the user parameters of the Space42 IP Handset. Move around in the menus with the arrow keys and select with the select keys.



3.3.1 ABOUT

In the ABOUT section you find the serial number of the Space42 IP Handset, the handset name and the software version of the Space42 IP Handset.

1. From the main menu, select **ABOUT**.
2. Select the information you want for the handset.
   - **HANDSET NAME**: The name of the handset (Space42 IP Handset).
   - **MODEL**: The model number for the handset (8012A).
   - **P/N:** The part number for the handset.
   - **FCC ID**: The FCC ID of the handset.
   - **SERIAL NUMBER:** The serial number of the handset.
   - **SOFTWARE VERSION:** The version of the Space42 IP Handset software.
   - **BUILD NUMBER**: The build number of the Space42 IP Handset software.

3.3.2 SETTINGS

To access the SETTINGS menu, select **SETTINGS** from the main menu. The SETTINGS menu contains:

- *Network*
- *Sound*
- *Display*
- *Time and date*
- *Start up options*
- *PIN code for handset*
- *Language*
- *Factory reset*
- *Handset diagnostic report*

Network

You can select whether or not the Space42 IP Handset should use DHCP to automatically obtain an IP address. Static IP addresses are also supported. It is recommended to use DHCP. Automatic IP DHCP is the default setting. To select the IP mode:

1. From the main menu, select **SETTINGS** > **Network**.
2. Do one of the following:
   - If the Space42 IP Handset should use DHCP to automatically obtain an IP address, check the box next to **AUTO IP DHCP**.
   - For a static IP address, clear the box next to **AUTO IP DHCP** and continue to the next step.
3. If you selected not to use DHCP, select **Manual settings** and scroll down to **IP address**.
4. Enter the **IP address**, **Subnet mask**, **Default gateway**, **Primary DNS** and **Secondary DNS**.
5. Select **ACCEPT**.
   The handset will now use the static information you entered, instead of automatic IP address allocation using DHCP.
6. Select **Network info** to see:
   - DHCP Enabled/Disabled
   - IP address
   - Subnet mask address
   - Default gateway
   - MAC address

Sound

You can adjust the ringtone and the ringtone volume.

To adjust the **Ringtone** of the handset:

1. From the **SETTINGS** menu, select **Sound**.
2. Select **RINGTONE** and select the ringtone you want.
3. Select **RINGTONE VOLUME**, use the keys ◀ and ▶ to adjust the volume and select **ACCEPT**.

To select the **audio source** for the handset:

1. From the **SETTINGS** menu, select **Sound**.
2. Select **PHONE AUDIO SOURCE**.
3. Use the keys ◀ and ▶ to change the audio source and select **ACCEPT**.

Display

You can customize the following items in the display:

- Active backlight can be adjusted from 10 to 100 percent. The backlight is on for 15 seconds after the last key press.
- Standby backlight can be adjusted from 0 to 50 percent and cannot be set higher than the current Active backlight
- Screensaver. You can select whether the Space42 IP Handset should use a screen saver when it is not used for one minute.
- Night theme can be selected. This automatically gives you optimum display light conditions, also for operation in low light areas. If you do not want to use automatic activation, deselect it.
- Show keyboard. Select this option to get an on-screen keyboard instead of using the alphanumeric keys when entering text.

To set up the display settings:

1. From the **SETTINGS** menu, select **Display**.
2. Move to the setting you want to change.
3. For the **ACTIVE BACKLIGHT** and **STANDBY LIGHT** settings, use the keys ◀ and ▶ to change the percentage.
4. For the remaining settings, select or deselect the check-box.

Time and date

Note The date and time is only maintained as long as the handset is powered!

To set the date and time:

1. From the **SETTINGS** menu, select **Time and date**.
2. If your handset is connected to a satellite terminal and you want to use the UTC time received from the satellite, select **USE TERMINAL TIME**. Then leave the menu.
3. If you want to set the date and time manually, clear the **USE TERMINAL TIME** box. Then continue to the following steps.
4. To change the time, select **Set time and date,** type in the new date and time and select **ACCEPT**. The new time is activated immediately.
5. To switch the time format between 24h and 12h, scroll to **TIME FORMAT** and use the keys ◀ and ▶ to select the wanted format.

6. To change the time zone, scroll to **TIME ZONE SETTINGS** and use the keys ◀ and ▶ to select the wanted time zone.

Start up options

You can select whether or not you want to clear the log and the Contacts in your handset every time you start up the handset. You can also select whether or not you want handsets to be automatically set up when they are connected to a satellite terminal.

To select the startup options:

1. From the **SETTINGS** menu, select **Start up options**.
2. If you want to clear the logs and/or the Contacts at every startup, select **CLEAR CALL LOG** and/or **CLEAR CONTACTS**. To leave the menu, select **BACK**.
3. If you want the Space42 IP Handset to be set up automatically when it connects, select **AUTO CONNECT DEFAULT SIP**.
   With this option selected, from next startup, the Space42 IP Handset will automatically be set up with the default local number, user name and password when connected to a satellite terminal.
   To leave the menu, select **BACK**.

PIN code for handset

Note There may be 2 PIN codes for the system:

- one for the satellite terminal (SIM PIN, described in *To establish a connection* on page 2-5) and
- one for the Space42 IP Handset (described in this section)

If a PIN code is defined for the handset, it must be entered at startup and when the screensaver is active.

Important If you have entered a wrong PIN code 5 times, the handset is locked! Contact your distributor for an unblocking code.

Note that you **do not have to enter the PIN** to answer the phone when it is ringing.

To set up the PIN code for the handset:

1. From the **SETTINGS** menu, select **PIN code**.
2. Select **ENABLE** to enable the use of a PIN code for the handset.
3. Enter the PIN code you want to use and click **ACCEPT**.
4. If you want to change the PIN code, select **Change**.
   You must enter this PIN code before you can change it.
5. Type in the PIN code you want to use and select **ACCEPT**.
6. Repeat the PIN code and select **ACCEPT**.
7. Select **BACK** to leave the menu.

Language

To change the language of the display, select **Language** from the **SETTINGS** menu and select the language you want.

Factory reset

You can reset the Space42 IP Handset to factory default settings.

To return to factory default for all settings:

1. From the **SETTINGS** menu, select **Factory reset**.

   Important | All settings and status information are lost when you accept this setting!

2. Confirm the factory reset.
   All settings and status information are now changed to factory default settings. Note that in some cases this operation may take up to 30 seconds.

   Note | You are prompted for a PIN code at this point, if there is a PIN code for the handset and it is enabled.

Handset diagnostic report

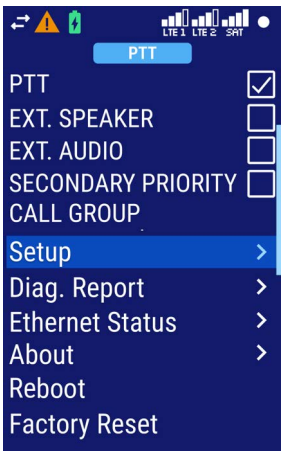
The Space42 IP Handset can generate a diagnostics report. This report includes information that can be very useful for a service technician. If you are reporting an error with your Space42 IP Handset, you may be asked to provide a diagnostics report. To generate a diagnostics report:

Using handset display:

1. From the **SETTINGS** menu, select **Handset diag. report** and confirm.

A diagnostics report is generated and saved in the handset. You can save it to your computer using the web interface of the handset, as shown in *Diagnostics report* on page 4-3.

3.3.3 PTT setup



The Space42 IP Handset can be used a standard phone, a PTT handset or both.

To set up the Space42 IP Handset as a PTT handset:

1. Select **PTT** from the main menu.
2. Select **PTT** (check box).
3. Select if you are using an external speaker and/or external audio.
4. Select whether you have a Second priority call group.
5. Select **Setup** to set up PTT IP address, user name and password, and enter the details.
6. If you want to generate a diagnostic report for the PTT system, select **Diag. Report**.
   Select whether you want to save the report to USB on the connected device or to the server. If you select **Save all to USB** you will get a diagnostic report for both the PTT system and for the connected device.
7. If the connected PTT unit is a Mobile Gateway M/C NEO: **Ethernet status** shows the status of the Ethernet connections on the Mobile Gateway M/C NEO.
8. Select **ABOUT** to see Device model, Serial number, Software version and Alias of the connected unit (Satellite terminal or Mobile Gateway M/C NEO).
9. Reboot:
   - If the handset is connected to a satellite terminal: Select **Reboot** and confirm to restart **PTT services in the satellite terminal**.
   - If the handset is connected to a Mobile Gateway M/C NEO, select **Reboot** and confirm to **reboot the Mobile Gateway M/C NEO**.

10. If the handset is connected to an Mobile Gateway M/C NEO, select **Factory reset** to **reset the Mobile Gateway M/C NEO to factory defaults**.

3.3.4 PHONE setup

Note Telephony (phone) over satellite is only possible when connected to T4-NGS network.

PSTN

The Space42 IP Handset can be used a standard phone, a PTT handset or both. Select whether or not you want to use the Space42 IP Handset as a normal (PSTN) phone.

SIP telephony and profiles

The Space42 IP Handset has an integrated SIP (Session Initiation Protocol) client used for SIP telephony between the handset and the satellite terminal, which has an integrated SIP server, or another SIP server. How to set up the SIP profile depends on your subscription and the SIP server and network to which the handset is connected.

To activate a SIP profile

The default profile is the profile that is used when the Space42 IP Handset is connected to a satellite terminal.

1. From the main menu, select **PHONE > SIP**.
2. Move to the profile you want to use for communication, and select **Connect**.

To add a new SIP profile

Add a new SIP profile if you want to connect the SIP client of the Space42 IP Handset to a SIP server. You need to enter several network specific values so the handset can communicate with the SIP server. The Space42 IP Handset can hold up to 4 profiles.

The following parameters can be set up in the SIP profile:

- Profile name
- SIP server and port
- User name
- Password
- Codec priority
- STUN server
- Reregister interval

To add a new SIP profile:

1. In the SIP menu, select **Options**.
2. Select **Add**.
3. At the setting you want to enter/change, select **Edit.** Type in the information and enter with **ACCEPT**.

   Note Use the down key to scroll down through the items in this sub menu.

   - **PROFILE NAME:** The name to use for the new profile.
   - **SERVER IP:** The server name (URL) or IP address. **Example**: Server name is **voip.serv**.
   - **SERVER PORT:** The port number for the SIP server.
   - **USER NAME:** When connecting to a satellite terminal, the user name should be the same as the local number for the handset.

- **PASSWORD:** When connecting to a satellite terminal, the password must match the Space42 IP Handset password entered in the terminal.
- **CODEC PRIORITY:** Select the voice codec type that should have the highest priority. You may select G711 or G729. This depends on the voice exchange system in the connected equipment (satellite terminal in most cases).
- **STUN SERVER**: If your SIP telephony installation requires a STUN server name, you can enter it here. Refer to the documentation of the SIP server.
- **REGISTER INTERVAL**: This setting sets the time interval in which the Space42 IP Handset registers with the SIP server it is connected to. If the SIP server is the satellite terminal, you don't need to change this setting. The interval is set to 120 seconds (default). The maximum value is 86400 seconds (24 hours).
  If the connection to an external SIP provider is made through a NAT router, this setting may be needed to keep the connection through NAT to the SIP server open. This setting should in this case typically be set to 20 seconds.

Note If the Space42 IP Handset registers with the SIP server over a satellite connection or other telecommunications network you may set this time interval to a larger value to avoid unintended use of bandwidth.

4. When you have made and accepted the changes, select **BACK**.
5. If you want to connect immediately with the new SIP profile, select **Connect**. If not, select **BACK** to leave the menu.

To edit a SIP profile

1. In the list of profiles, go to the profile you want to change and select **Options › View/Edit**.

Note You can also change the Default profile, but be aware that the Default profile is used when **AUTO CONNECT DEFAULT SIP** is selected under *Start up options*.

2. Edit the settings as described in the previous section *To add a new SIP profile*.

To delete all SIP profiles

1. From the SIP menu, select **Options**.
2. Select **DELETE ALL**.

Important All profiles except the default profile are deleted - this means that you will only be able to connect your handset using the default profile.

3. Select **Yes**.

To see memory usage in the list of SIP profiles

To see the number of profiles in the list and the maximum allowed number of profiles:

1. From the SIP menu, select **Options**.
2. Select **MEM. USAGE**.

Call log

The Space42 IP Handset logs all calls and dialed numbers. The log entry shows the name (if known), the number, time of the call and duration. Note that the call log can hold maximum 100 calls. You can delete calls from the call log.

To display the call log in the handset display:

1. From the main menu, select **PHONE › Call log**.
2. Select the list you want to see.

To delete all numbers in a call log folder:

Select **Clear all** and confirm.

To display the call log in web interface:

1. Connect a computer and access the web interface as described in *Access the web interface* on page 4-1.
2. Select **Call Log** from the left menu.

Delete all contacts

To delete all contacts in the Space42 IP Handset, select **PHONE** > **Delete all contacts** and confirm.

3.3.5 TERMINAL

When the Space42 IP Handset is connected to a satellite terminal, the handset provides a dedicated **Terminal** menu. Through this menu you have access to a subset of controls and views of the satellite terminal.

You may find the following items in this menu (depending on configuration):

- **Connect**. You can use the handset to start and stop IP connections in the satellite terminal (Only shown when handset no. 0501 is connected to the satellite terminal and the connections are set up in the satellite terminal).
- **Status**. Current signal strength, GNSS position, Terminal status and PIN status.
- **Setup**. Setup of IP address, user name and password and PIN code for the satellite terminal.
- **About**. Name, serial number and software version of the satellite terminal.

Each item is explained in detail in the following sections. To access the Terminal menu, select **Terminal** from the main menu.

To start and stop IP connections

You can use the Space42 IP Handset with local number 0501 to start or stop the default data connection of the satellite terminal. The network user groups and types of data connections are configured in the web interface of the satellite terminal. With this functionality you do not need to connect a PC to the satellite terminal to start or stop IP background or streaming connections for devices connected to the satellite terminal.

To start and stop IP standard or streaming connections:

1. From the **TERMINAL** menu, select **Connect**.
2. Select **Start connection** to start a connection, or deselect to stop the connection.
   The Space42 IP Handset sends a command to the satellite terminal to start or stop the selected connection. Check in the handset at regular intervals that the connection is still running.
   If the connection could not be started by the satellite terminal, the check mark will be removed and the connection is inactive.
3. For options specific to the connected satellite terminal, select **Options**.

For detailed information about using IP data connections and setting up network user groups with standard and streaming profiles refer to the satellite terminal's user manual.

Note **Optimize airtime and bandwidth usage**: You must manually stop the connection when not used any longer. Note that you are charged for the bandwidth used and the data transferred.

To see terminal status information

To see the satellite terminal status:

1. From the **TERMINAL** menu select **Status**.

The status menu shows the following information:

- **CNo** shows the signal strength of the satellite connection (the carrier-to-noise ratio).
- **GNSS position** shows the current position of the satellite terminal.
- **Terminal status** shows status of the satellite connection, e.g., Ready or Registering.
- **PIN status** shows status of the PIN, e.g., whether the terminal is waiting for a PIN.

To access the satellite terminal

1. From the **TERMINAL** menu, select **Setup**.
2. Enter IP address, User name, Password and Terminal PIN (if required by the terminal).

See properties of the satellite terminal

To see the properties of the connected satellite terminal, select **TERMINAL > About**.

The display shows the name, serial number and software version of the terminal.

3.3.6 EVENTS

You can see warning or error messages from the Space42 IP Handset, the satellite terminal or the PTT system in the Space42 IP Handset.

Press **Details** to see further information about the event, or press **Exit** to return to normal phone operation.

As long as the warning or error condition is present in the terminal the yellow or red alarm icon is displayed in the handset display. When there is no active event in the terminal, the alarm icon disappears.

Refer to the satellite terminal's user manual for further details on the satellite terminal events and how to resolve them.

To display active events

You can display a list of active events and click for details for each active event.

To read satellite terminal events:

1. From the main menu, select **EVENTS**.
   The display shows a list of active events.
2. Scroll to an event and select **VIEW** to display details about this particular event.
3. Press **ACCEPT** or **BACK** to return to normal phone operation.

To view the event log

The event log shows events that have occurred in the satellite system. To see the event log:

1. From the main menu, select **EVENTS**.
2. Select **LOG** with the right select key.
3. Use the left/right arrow keys to select the **PTT**, **TERMINAL** or **HANDSET** event log.
4. Scroll to an event and select **VIEW** to see details for the event.
5. Select **BACK** to return to normal phone operation.

Service & maintenance

This chapter gives guidelines for getting support, general maintenance tasks and troubleshooting,

4.1 Get support

If this manual does not provide the information required to solve your problem, you may want to contact your Airtime Provider or your supplier.

If you can see that the problem is related to airtime and not to the Space42 IP Handset, please contact your Airtime Provider.

If you need assistance with problems caused by the Space42 IP Handset, please call a distributor in your area. You may be asked to generate a diagnostics report. For information on how to generate a report, see *Handset diagnostic report* on page 3-10, or use the web interface described below.

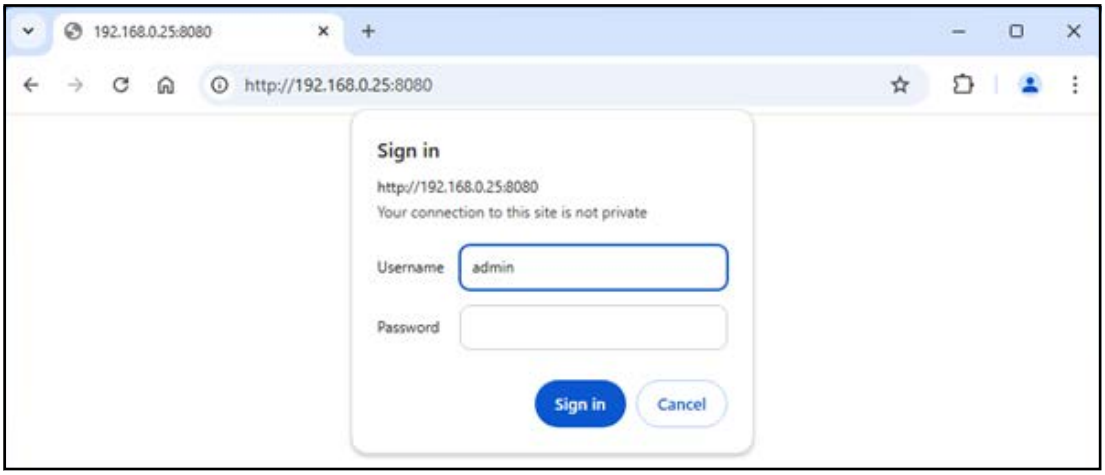
4.2 Access the web interface

To access the web interface of the Space42 IP Handset:

1. Find and note the **IP address** of the handset: Enter the menu system in the handset and select **SETTINGS › Network › Network info › IP address**.
2. Connect the handset to a LAN (PoE) interface on your computer.
3. Open a browser on the computer and connect to port 8080 on the IP address of the handset.

   Example: If the IP address of your handset is 192.168.0.25, type in **http://192.168.0.25:8080** in the address field in your browser.

   The Space42 IP Handset web interface opens.



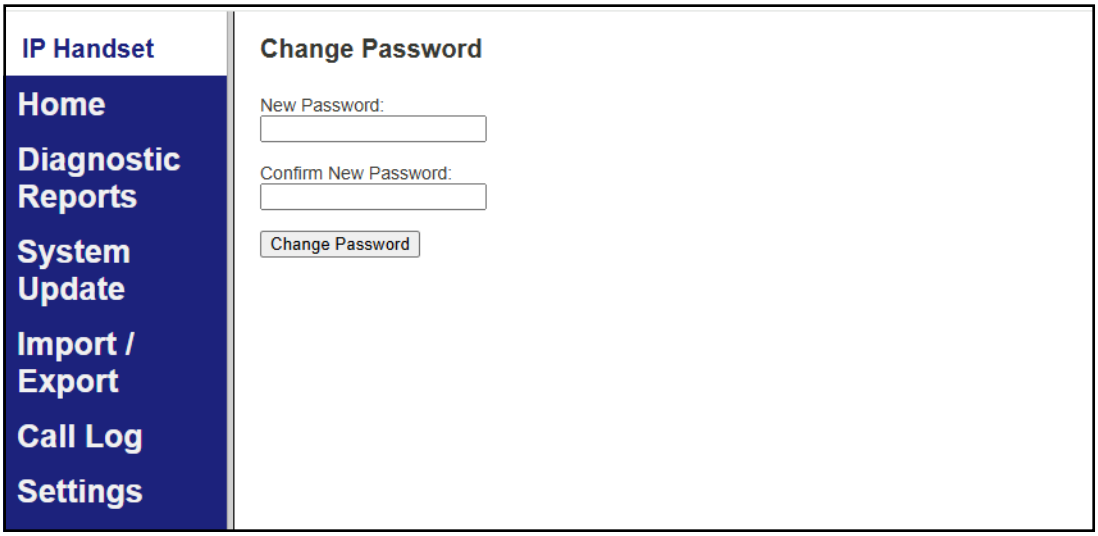
4. Enter user name **admin** and password and click **Sign in**.

   Note **The password is empty by default** - can be changed under **SETTINGS**.

5. The **Home** page shows the properties of the handset.

4.2.1 Change password for web interface

1. Access the web interface as described in *Access the web interface* on page 4-1.
2. Select **SETTINGS** from the left menu.
3. Click **Web interface authentication**.



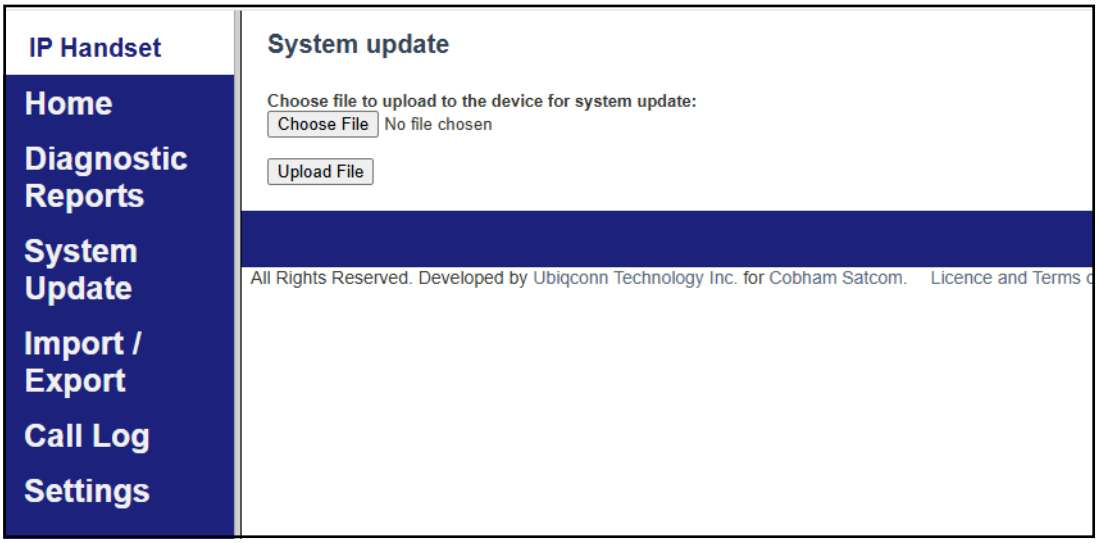
4. Enter the new password twice and click **Change Password**.

The new password is required from next login.

4.3 Update software

To update the software in the handset:

1. Download the new software or acquire the software from Space42 and save it on your computer.
2. Access the web interface as described in *Access the web interface* on page 4-1.
3. Select **System update** from the left menu.



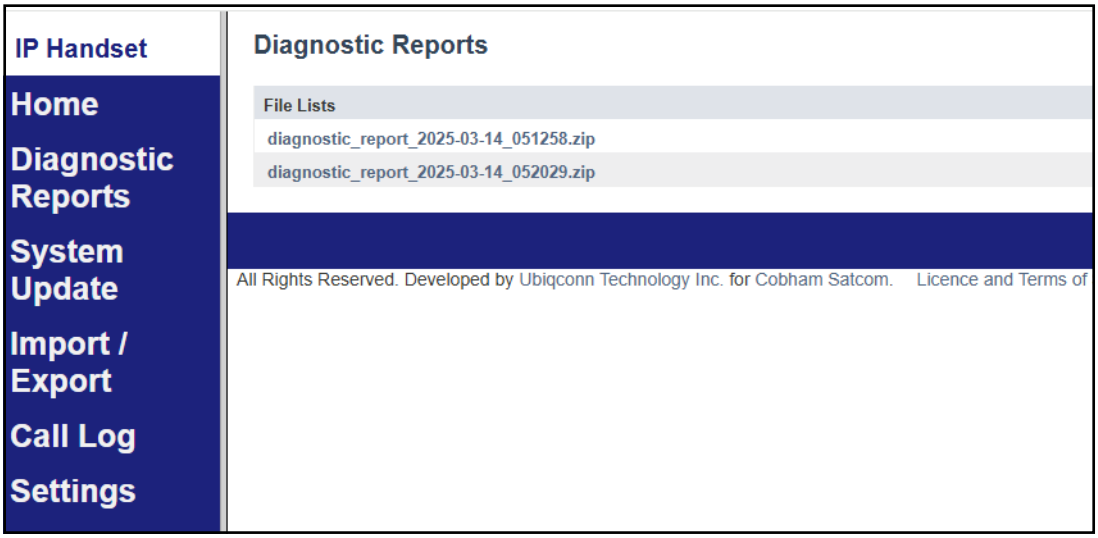
4. Click **Choose file** and browse to the file with the software.
5. Click **Upload file** to update the software in the handset.

The Space42 IP Handset will restart when done.

4.4 Diagnostics report

To generate and download a diagnostics report:

1. Access the web interface as described in *Access the web interface* on page 4-1.
2. Select **Diagnostic Reports** from the left menu.



3. Select the report you want to download and browse to the location where you want to save it.

4.5 Import/export handset configuration

You can import or export some of the handset configuration, e.g., for quick setup of multiple handsets:

1. Access the web interface as described in *Access the web interface* on page 4-1.
2. Select **Import/Export** from the left menu.

3. To import a configuration file, click **Choose File**, browse to the file you want to import and click **Import**.
4. To export a configuration, select the configuration items you want to export and select **Export**.
5. Select the location where you want to save the configuration file.

4.6 Maintenance tasks

4.6.1 Clean the Space42 IP Handset

Wipe the Space42 IP Handset with a clean dry cloth if it is dirty.

4.6.2 Disposal of the Space42 IP Handset

Old electrical and electronic equipment marked with this symbol can contain substances hazardous to human beings and the environment. Never dispose these items together with unsorted municipal waste (household waste). In order to protect the environment and ensure the correct recycling of old equipment as well as the re-utilization of individual components, use either public collection or private collection by the local distributor of old electrical and electronic equipment marked with this symbol.

Contact the local distributor for information about what type of return system to use.

4.7 Troubleshooting guide

The below table provides information on some of the problems that might occur, including possible causes and remedies to solve the problems.

Problem	Possible Cause	Remedy
The handset cannot start and shows an **Android Recovery** message.	The handset was powered off while it was being configured, causing invalid user data.	Use the down arrow key to locate Wipe data / factory reset. Press the center to select and confirm to reset the handset to factory settings.
No connection to the satellite network.	1) The PIN code has not been entered in the satellite terminal, 2) There is an error in the terminal or the satellite network.	1) Enter the PIN code for the satellite terminal. For information on how to enter the PIN, see *Establish a phone connection using satellite terminal* on page 2-5. 2) See the manuals for the satellite terminal for information on how to troubleshoot errors.
The handset shows “SIP fault”	No SIP profile is selected, the selected SIP profile is invalid, or the user name or password is wrong.	Enter the menu system and select **PHONE > SIP** to see the selected profile. Change the profile or select another profile if necessary. For further information, see *SIP telephony and profiles* on page 3-11.

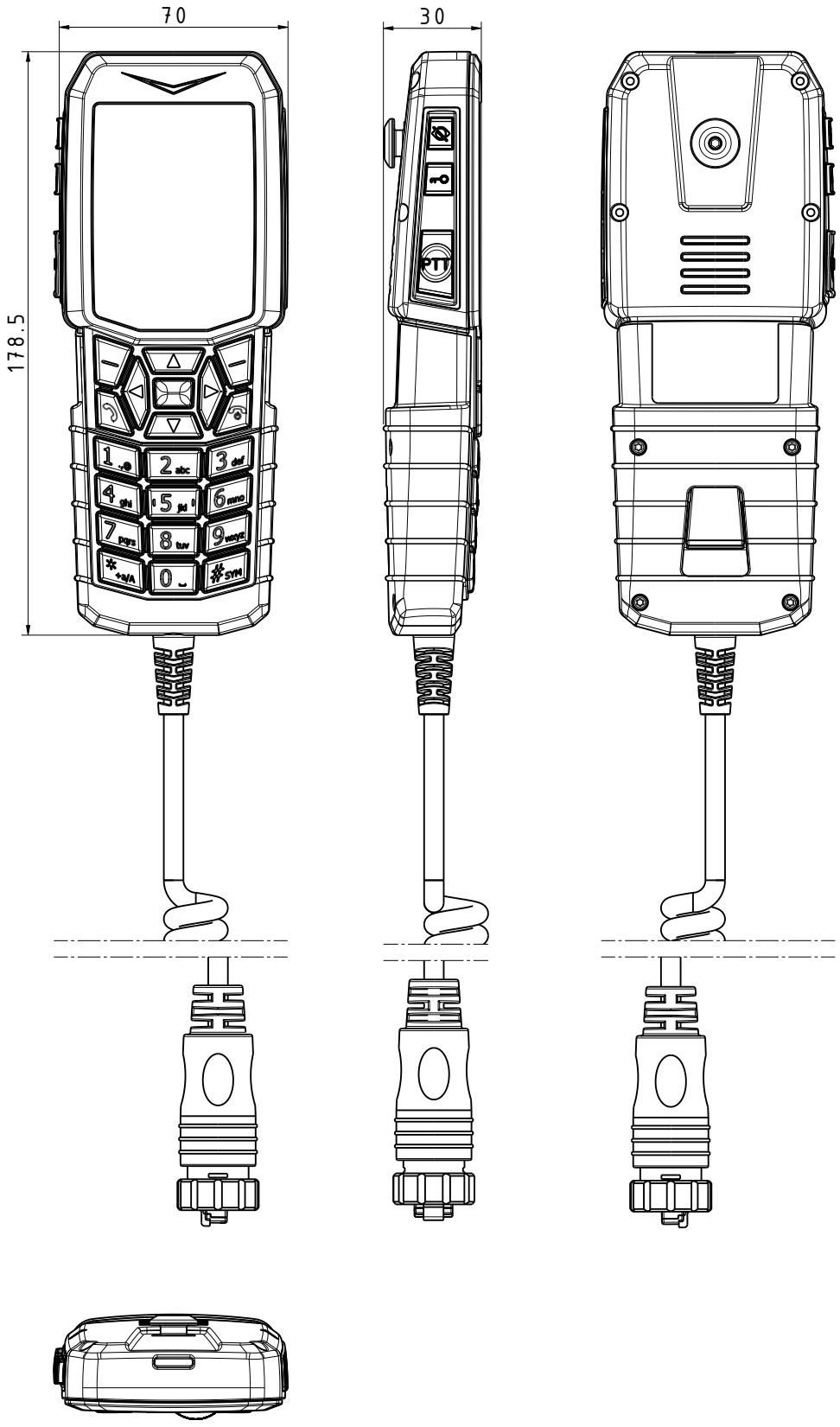
Technical specifications

This appendix contains specifications and outline drawing for the Space42 IP Handset.

A.1 Space42 IP Handset specifications

Item	Specification
Type	Space42 IP Handset
Dimensions (L x B x H)	178.5 mm x 70 mm x 30 mm
Weight	250 g (without cable)
Display	2.8", 240 x 320 pixel TFT color LCD
Operating temperature	-25°C to +55°C
Storage and transport temperature	-40°C to +80°C
Humidity	Up to 95% without condensation
Air pressure, transport	At low pressure 18.8 kPa (12.192 m = 40.000 ft)
Power	PoE PD (802.3at) Type 1 (mode A & B)
Power consumption	Max. 7 Watt
Ingress Protection rating	IP68
LAN interface	10/100 Mbps
Network Protocol	Internet Protocol (IP)
VoIP Protocol	SIP v2 Session Initiation Protocol (RFC3261), SDP
Voice Codecs	G711 and G729
Physical interfaces	RJ-45 male circular connector on fixed cable
Certifications	FCC, CE, RCM, Anatel, SRRC, IEC 62368-1 CB, ICE 60945, MIL-STD-461
Compass safe distance	0.7 m

A.2 Space42 IP Handset outline dimensions



Conformity

Certificates of approval will be available in https://partnerportal.cobhamsatcom.com/eshop/downloads, or from your supplier.

B.1 EU (CE)

The Space42 IP Handset is CE certified as stated in the “EU Declaration of Conformity”.

B.2 USA (FCC)

FCC e-label:

Model: 8012A

Space42 IP Handset

P/N: 408012A-S42

FCC ID: ROJ-8012A

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

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

NOTICE:
This device complies with Part 15C and part 15E of the FCC Rules.

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

NOTICE:
Changes or modifications made to this equipment not expressly approved by Cobham Satcom may void the FCC authorization to operate this equipment.

B.3 Canada (IC)

IC No: 6200B-8010A

Canada, Industry Canada (IC) Notices
This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's license-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Canada, avis d'Industry Canada (IC)
L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. L'appareil ne doit pas produire de brouillage;
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

CAN ICES-003(B) / NMB-003(B)
This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par le Ministère des Communications du Canada.

Changes and modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Industry Canada rules.

Les changements et modifications non expressément approuvés par le fabricant ou le détenteur de cet équipement peuvent annuler votre droit à utiliser cet appareil en vertu des règles d'Industrie Canada.

Antenna Statement
Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

License exempt
This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. this device may not cause interference, and
2. this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1. l'appareil ne doit pas produire de brouillage, et
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES- 003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This Category II radio communication device complies with Industry Canada Standard RSS-310.

Ce dispositif de radiocommunication de catégorie II respecte la norme CNR-310 d'Industrie Canada.

B.4 Australia (RCM)

The Space42 IP Handset is RCM certified as stated in the “Certificate/Declaration of Conformance RCM”.

B.5 USA (UL)

The Space42 IP Handset is UL certified as stated in the “Certificate of Conformance UL”.

Glossary

D

DHCP	Dynamic Host Configuration Protocol. A protocol for assigning dynamic IP addresses to devices on a network. With dynamic addressing, a device can have a different IP address every time it connects to the network.
DNS	Domain Name Server. A system translating server names (URLs) to server addresses.

I

IP	Internet Protocol. The method or protocol by which data is sent from one computer to another on the Internet.

M

MAC	Media Access Control address. A hardware address that uniquely identifies each node of a network.

N

NAT	Network Address Translation.

P

PIN	Personal Identification Number. A secret numeric password shared between a user and a system, used to authenticate the user to the system.
PSTN	Public Switched Telephone Network. The network of the world's public circuit-switched telephone networks. It consists of telephone lines, fiberoptic cables, microwave transmission links, cellular networks, communications satellites, and undersea telephone cables all inter-connected by switching centers which allows any telephone in the world to communicate with any other.
PUK	PIN Unblocking Key. An eight-digit code used to unblock a SIM card after three incorrect PINs have been entered. The PUK code is supplied with the SIM card.

S

SIM	Subscriber Identity Module.The SIM provides secure storing of the key identifying a mobile phone service subscriber but also subscription information, preferences and storage of text messages.
SIP	Session Initiation Protocol. An application-layer control (signaling) protocol for creating, modifying, and terminating sessions with one or more participants. Used, e.g., for Internet telephony.
STUN	Simple Traversal of UDP through NATs, a protocol for assisting devices behind a NAT firewall or router with their packet routing.

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