USER MANUAL

AVIATOR Wireless Handset and Cradle

Thrane & Thrane

AVIATOR Wireless 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 AVIATOR Wireless Handset in the presence of flammable gases or fumes. Operation of any electrical equipment in such an environment constitutes a definite safety hazard.

Caution! Do not disassemble the AVIATOR Wireless Handset. In case of malfunctioning return the handset to your local distributor or Thrane & Thrane.

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 AVIATOR Wireless Handset. The readers of the manual include anyone who is using or intends to use the AVIATOR Wireless Handset. No specific skills are required to operate the AVIATOR Wireless 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 AVIATOR Wireless 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.
- ***Operation*** describes how to use and configure the handset and explains the display menus.
- ***Using the web server*** explains how to use the built-in web server of the AVIATOR Wireless Handset.
- ***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 AVIATOR Wireless Handset. To obtain the latest version of the manual, please enter the Thrane & Thrane Extranet and download the latest version, or acquire it from your distributor.

Typography

In this manual, typography is used as indicated below:

Bold is used for the following purposes:

- To emphasize words.
  Example: “Do **not** touch the antenna”.
- 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...”.

`COURIER` is used to indicate display text.

Example: “The display shows **`39558880`**”.

Table of contents

Introduction

Welcome

Congratulations on the purchase of your AVIATOR Wireless Handset!

The AVIATOR Wireless Handset communicates using Voice over Internet Protocol (VoIP), which means that voice conversations are routed over the Internet or through an IP-based network.

Your AVIATOR Wireless Handset

Description

The AVIATOR Wireless Handset is used for making phone calls over an IP based network. VoIP calls can be terminated in the SIP server of the SwiftBroadband unit of the satcom system, or they can travel as IP calls over satellite and be terminated by a SIP server at the receiving end.

You can make secure calls to all IP phones complying with the ZRTP version used by the AVIATOR Wireless Handset.

The AVIATOR Wireless Handset has some SwiftBroadband unit control functions. If configured as handset with the local number 0501, you can use the handset to start and stop data connections (background or streaming) for all network user groups.

To improve overall system overview the AVIATOR Wireless Handset displays active, critical alarms from the SwiftBroadband unit to keep you informed about the status of the SwiftBroadband unit.

The handset is designed specifically for use in harsh environments and it is dust proof and splash proof. Excellent sound quality is achieved by including an efficient noise suppression software. On the large 2.2" color TFT screen, a graphical user interface provides easy access to all functions including contacts and settings. The user interface also provides direct access to certain features of a connected SwiftBroadband unit.

The AVIATOR Wireless Handset

The AVIATOR Wireless Handset connects to a wireless access point using Wireless Local Area Networking (WLAN).

The internal battery is charged from the dedicated cradle.

Due to the improved power management the AVIATOR Wireless Handset can be on stand-by time for up to 24 hours.

The AVIATOR Wireless Handset & Cradle, wireless, includes the following main units:

- TT-5624B AVIATOR Wireless Handset
- TT-5626B Cradle for AVIATOR Wireless Handset

Features

The AVIATOR Wireless Handset offers the following features:

- Plain voice communication over Internet or IP based network
- Secure voice communication over Internet or IP based network
- Start and stop IP data connections in a connected SwiftBroadband unit
- Contacts list with up to 100 entries
- Intuitive user interface and menu system
- Built-in web interface
- High quality color display QVGA with night colors
- Rugged but elegant design
- Splash proof and dust proof
- Connectivity to SwiftBroadband services, i.e. SwiftBroadband unit
- BGAN menu to display SwiftBroadband unit type, GPS position and more
- Display of critical alarms of the SwiftBroadband unit

Getting started

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

Getting started with the AVIATOR Wireless Handset

Introduction

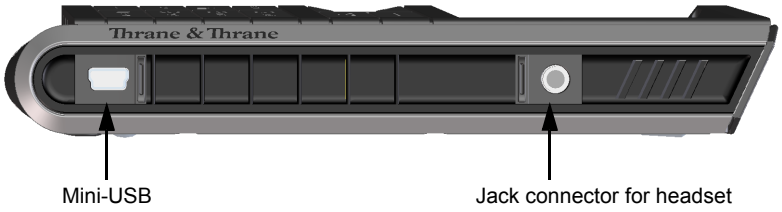
The AVIATOR Wireless Handset connects to a wireless access point, which is connected to a SwiftBroadband unit or other IP connection or directly to a SwiftBroadband unit with integrated wireless access point. The internal battery is charged from the dedicated cradle connected to an external power supply.

AVIATOR Wireless Handset connectors

The handset has two connectors on the side of the handset:

- one connector for connecting a headset.

one Mini-USB 5-pin connector, for charging the handset from a computer or USB charger in the service & installation center.



Preparing the hardware

For the wireless AVIATOR Wireless Handset you need the following hardware:

- A SwiftBroadband unit with integrated wireless access point or a separate wireless access point complying to the Wireless Local Area Networking (WLAN) standard 802.11b/g
- For charging the handset in the cabin always use the cradle.

To connect the wireless access point

If the SwiftBroadband unit has not an integrated wireless access point you may connect the wireless access point to a SwiftBroadband unit or to your standard network connection.

For information on how to install the wireless access point, refer to the documentation that comes with your wireless access point.

Charging the AVIATOR Wireless Handset

Introduction

The battery icon next to the handset icon in the top right corner of the display shows the battery status of the handset. When the battery level is critically low, the handset makes a sound and shows a message, and the icon starts flashing to indicate that the battery needs recharging. If the battery is not recharged, the handset will eventually switch off.

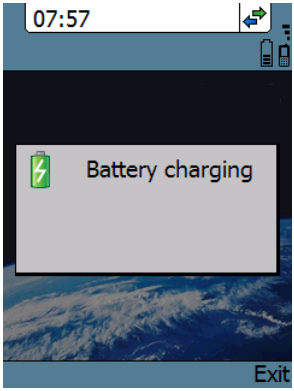
Note To charge the AVIATOR Wireless Handset outside the aircraft you can make a service charge using a computer or USB charger. For details how to proceed see the Installation and maintenance manual.

To charge the AVIATOR Wireless Handset using the cradle

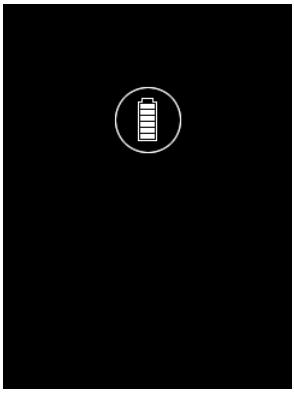
Place the AVIATOR Wireless Handset in the cradle with the display facing up. The handset automatically starts the charging process.

Indications during charging process

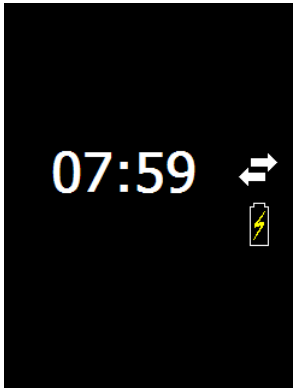
A message appears briefly in the display, the AVIATOR Wireless Handset makes a sound and the battery icon is animated to show that the battery is charging.



Below are examples of the display when the handset is off and when it is in screensaver mode while charging the battery.



Handset off (animated). The icon is turned off after a while, but reappears when a key is pressed.



Screensaver mode

Note If the AVIATOR Wireless Handset is out of use for a longer period of time, recharge the battery every two years to avoid deterioration of the battery. Outside the aircraft you can make a service charge using a computer or USB charger. For details how to proceed see the Installation and maintenance manual.

Connecting the AVIATOR Wireless Handset to a wireless access point

Note This procedure is only needed at the first connection. Once connected, the AVIATOR Wireless Handset automatically attempts to connect to this access point, whether it is integrated in the SwiftBroadband unit or not, whenever it is switched on.

To connect the AVIATOR Wireless Handset to your wireless access point, do as follows:

1. Start up the wireless access point.
2. Switch on your wireless AVIATOR Wireless Handset by pressing and holding the on hook key  until the display lights up.
3. Press the center select key to enter the menu system.
4. Select **Network > Wireless network**.
5. When the list of available access points appears in the display, select the access point you want to connect to.

   Note Access points with a profile matching your AVIATOR Wireless Handset are marked with . If this symbol is not present, you cannot connect to an encrypted network until you have set up your wireless profile to match the access point. If you select an encrypted network without a defined profile you are prompted for security settings.

6. If you are prompted for security settings, select **OK** to enter the **Profiles** menu. Set the security settings as described in *To connect the AVIATOR Wireless Handset to the wireless network* on page 51.
7. Select **Connect**.

   The handset now attempts to connect to your wireless access point. If the access point is connected to a SwiftBroadband unit, see *Establishing a connection* on page 9.

   When the handset is connected to the access point, the display shows **Connected**.

Establishing a connection

Using a SwiftBroadband unit

Introduction

By connecting the AVIATOR Wireless Handset to a SwiftBroadband unit you gain access to the satellite network with your AVIATOR Wireless Handset. When the AVIATOR Wireless Handset is used with the SwiftBroadband unit, it communicates using Internet protocol between the handset and the terminal. However, on the SBB network side of the terminal the call is transmitted as a circuit switched Standard Voice or 3.1 kHz Audio call.

When connected with the SwiftBroadband unit the AVIATOR Wireless Handset provides a dedicated menu for the terminal.

AVIATOR Wireless Handset connection

The wireless handset is connected to the SwiftBroadband unit either by connecting to the integrated wireless access point of the terminal or a separate wireless access point to one of the LAN ports of the terminal. For information on how to connect the handset to the access point, see *Connecting the AVIATOR Wireless Handset to a wireless access point* on page 8.

Establishing a connection

If one or more handsets have already been connected to the SwiftBroadband unit, and the new handset has not been connected to the terminal before, you must configure the new AVIATOR Wireless Handset. You need to set up the following in the handset and in the web interface of the SwiftBroadband unit:

- User name
- Password
- Local number

For further information, see *Connecting subsequent handsets to the SwiftBroadband unit* on page 12.

If no SIM PIN is required

If the AVIATOR Wireless Handset is connected to a SwiftBroadband unit where the SIM PIN is disabled or has already been entered, the SwiftBroadband unit automatically sets up a communication profile (SIP profile) and assigns the local number 0501 to the first handset that is connected.

If a SIM PIN is required

If the AVIATOR Wireless Handset is connected to a SwiftBroadband unit 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 SwiftBroadband unit.

To enter the SwiftBroadband unit's SIM PIN, do as follows:

1. From the main screen of the handset, press the center select key to enter the menu system.
2. Select **SBB**.

3. Select **Enter PIN code**.

> **Note** This menu item is not available if the PIN has already been accepted. You can check at **Status > PIN status** to see if the PIN has been accepted.

4. Enter the Administrator user name and select **OK**.
   For information on how to type text in the handset, see *How to enter text in the AVIATOR Wireless Handset* on page 44.
5. Enter the Administrator password and select **OK**.
6. Enter the SIM PIN and select **OK.**
   If the SIM PIN is rejected, see the next section *Wrong PIN*.

When the PIN is accepted, the SwiftBroadband unit automatically sets up a SIP profile and assigns the local number 0501 to the first handset that is connected.

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 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.

AVIATOR Wireless Handset ready

When the display shows the handset ready symbol  in the upper right 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.

Connecting subsequent handsets to the SwiftBroadband unit

If one ore more handsets have already been connected to the SwiftBroadband unit, you must configure the new AVIATOR Wireless Handset. You need to set up the user name, password and local number in two places:

- In the AVIATOR Wireless Handset
- In the web interface of the SwiftBroadband unit.

The first AVIATOR Wireless Handset is automatically assigned user name 0501 and password 0501. Assign user name 0502 to 0516 and password 0502 to 0516 to further AVIATOR Wireless Handsets.

To enter user name and password for the AVIATOR Wireless Handset

To enter the user name and password in the AVIATOR Wireless Handset, do as follows:

1. Start up the handset as described in the previous sections.
2. Enter the menu system and select **SIP**.
3. Move to the SBB profile and select **Options** (left select key).
4. Select **Edit/View**.
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 SwiftBroadband unit. 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. You can use the local number as the password as well, i.e. 0501 to 0516.
7. Exit the menu.

To set up the SwiftBroadband unit for additional AVIATOR Wireless Handsets

To match the AVIATOR Wireless Handset with the SwiftBroadband unit you must enter the local number and password for each AVIATOR Wireless Handset in the web interface of the SwiftBroadband unit.

To set up the SwiftBroadband unit, do as follows:

1. Connect a computer to the LAN interface of the SwiftBroadband unit and start up your browser.
2. Enter the IP address for the SwiftBroadband unit. The default IP address is 192.168.0.1.

   The web interface opens.
3. Select **SETTINGS > IP handsets**.
4. Locate the local number that matches the user name (local number) of your handset and click **New**.
5. Enter the same password you entered in the handset.

   When the terminal and the handset have recognized each other, a **Configure** link appears next to the new handset in the web interface of the terminal. Click the **Configure** link to open the internal web interface of the AVIATOR Wireless Handset. For information on the web interface, see *Using the web server* on page 77.

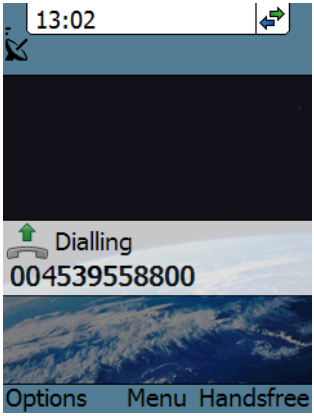
Making the first call

Important

For best sound quality in a noisy cabin environment do not cover the two sound inlets **on the front and the back** at the bottom of the handset.

To make a call, do as follows:

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 and dial up with the off hook key.
2. Press the off hook key in the left side of the keypad or press **#**.
   The display shows that the number is being dialled.
3. **Volume up or down:** If you need to adjust the voice volume during a call and the display shows the main screen, press ▲ or ▼ on the keypad.



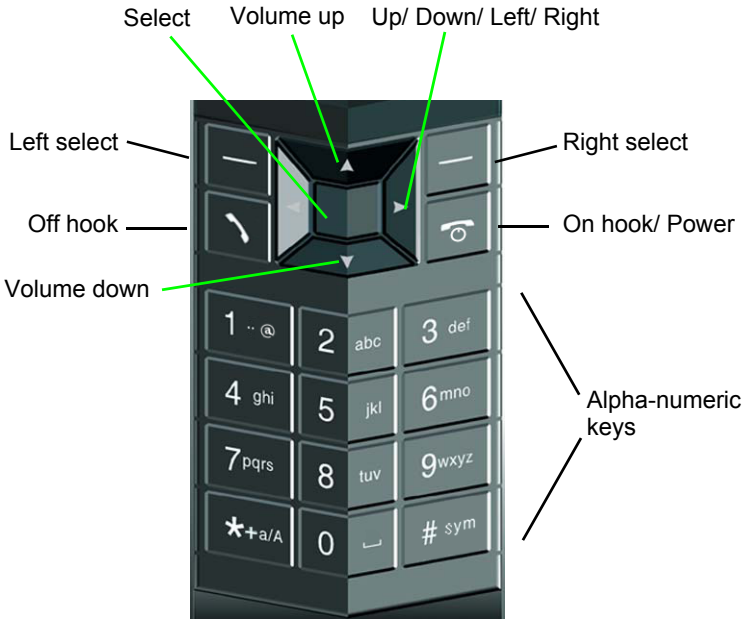
For further information on how to make calls, see *Handling calls* on page 28.

For a detailed description how to make secure calls see *Making a secure call from the AVIATOR Wireless Handset* on page 37.

AVIATOR Wireless Handset keypad and display

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 main screen: Opens the Contacts list.
	Off hook. After entering a phone number: Initiates a call to the number. From main 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 main 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 main screen: ▲ Volume up, ▼ down See also *Keypad shortcuts* on page 20.

Alpha-numeric keys

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

The functions available depend on whether you are typing a phone number (number mode) or text (text mode).

In number mode, you get the number of the key pressed. Only ∗ has two functions.

Press ∗ once: The display shows ∗.

Press ∗ twice, or press and hold: The display shows **+**.

Press #: The display shows #.

See the available functions in text mode on the next page.

In text mode, you have the functions listed below.

The ∗ key switches between text and number mode. There are three options: Numeric, lowercase and uppercase characters. You can see in the lower left corner of the display which mode is currently selected.

To get numbers from lowercase or uppercase mode, press and hold the key.

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

Key	Numeric output	Lowercase output	Uppercase output
1	1	. , @ : - ?	. , @ : - ?
2	2	a b c	A B C
3	3	d e f	D E F

Key	Numeric output	Lowercase output	Uppercase output
4	4	g h i	G H I
5	5	j k l	J K L
6	6	m n o	M N O
7	7	p q r s	P Q R S
8	8	t u v	T U V
9	9	w x y z	W X Y Z
0	0	[space]	[space]
*	Switches between lowercase, uppercase and numbers		
#	Symbols. Displays a list with the following additional symbols: . / : @ $ % ^ & * ( ) ~ ' - _ = + [ ] { } \ | ; ´ " ! < > , ? # € <CR>		

To navigate with the keypad

To enter the menu system from the main 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.

To select one of the items in the action texts area, press the key just below the text you want to select.

To go back one level in the current menu, press the right select key (only when **Back** is displayed above the key).

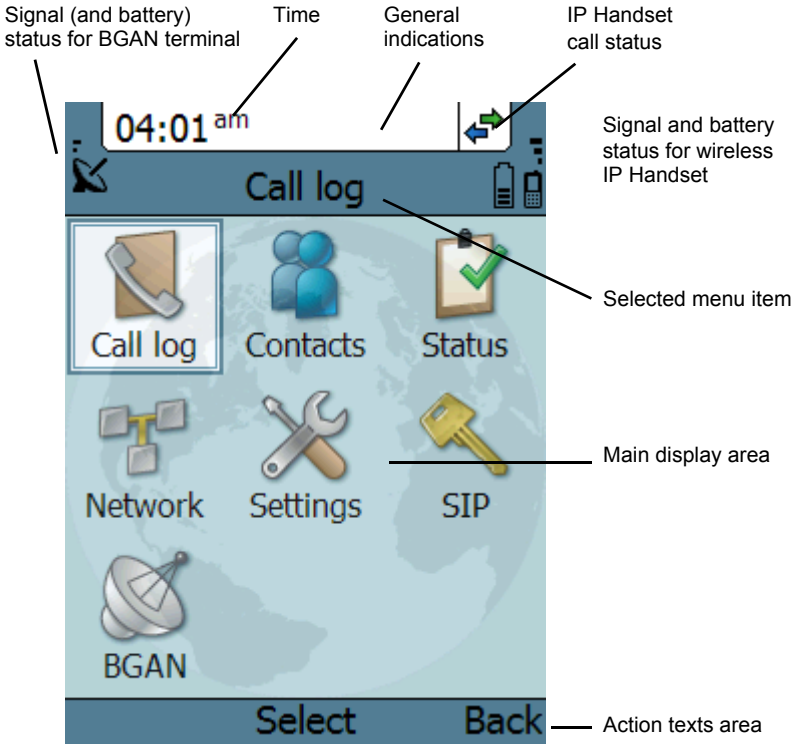
Keypad shortcuts

The following shortcuts are available:

▼	When the display is in the main screen, this key gives direct access to the list of contacts.
	When the display is in the main 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 main screen.
	When the display is in the main 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.

The display

The color display of the AVIATOR Wireless Handset is divided into sections with different types of information. The sections are outlined below.



BGAN signal and battery status

When the AVIATOR Wireless Handset is connected to a SwiftBroadband unit, the display shows the signal strength of the SBB signal.SwiftBroadband unit.

Time

The display shows the time of day.

The format is selectable in the **Settings > Date and time** menu.

General indications

General indications are icons that show dynamic information such as missed calls, sounds off, keypad locked and microphone muted.

For explanations of the icons, see *Icons in the display* on page 23.

AVIATOR Wireless Handset call status

This field shows handset status such as whether or not the handset is ready for making calls, or whether there is an ongoing call.

For explanations of the icons, see *Icons in the display* on page 23.

Signal and battery status for wireless AVIATOR Wireless Handset

This field shows the signal strength for the wireless connection and battery status for the wireless handset.

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
	Wireless handset (used together with signal strength and battery status).
	SwiftBroadband unit connected (used together with signal strength and battery status if relevant).
	Signal strength for wireless handset and/or for SwiftBroadband unit.
	Battery status for wireless handset and/or for SwiftBroadband unit.
	The handset is ready for making calls.
	The handset is not ready for making calls.
	Active critical alarm in SwiftBroadband unit.
	Incoming call - not yet answered (the handset is ringing).
	Incoming call in progress.

Icon	Meaning
	Outgoing call - not yet answered.
	Outgoing call in progress.
	Call ended.
	Missed call. See the Call log for information on the call.
	The microphone is muted. To reactivate the microphone, select **Options (left select key) > Microphone**.
	The handset is in silent mode. All external sounds from the handset - including ring tones - are muted. Voice is not muted.
	This symbol is shown when you are adjusting the volume.
	The keypad is locked. To unlock the keypad, press the center select key followed by the left select key.
	This symbol is used in the Contacts list to indicate that the number is from the phone book of the SwiftBroadband unit and is read-only.

Icon	Meaning
	When an alpha-numeric key is pressed from inside the Contacts list, this symbol is shown while the handset is searching for entries with the letter pressed.
	Wait - a task is in progress.
	Shown in the list of wireless access points: The wireless connection is encrypted.
	Shown in the list of wireless access points: The wireless connection is not encrypted.
	Shown in the list of wireless access points: The profile for the wireless access point matches the handset.

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.

Operation

This chapter describes how to use the AVIATOR Wireless Handset. It also describes how to configure the handset and use the display menu system, including a short description of how to use the AVIATOR Wireless Handset with a SwiftBroadband unit.

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*.

User interfaces

The main user interface for the handset is the display menu system. However, with a computer and a browser you can also use the built-in web server to access a subset of the handset settings. This way you can take advantage of a larger screen and still access a subset of the handset settings.

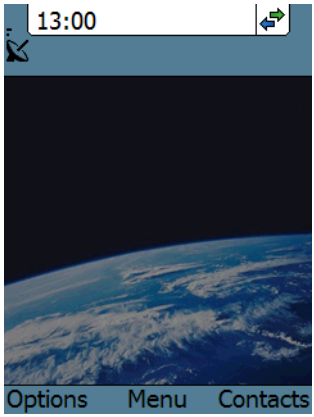
- **The display menu system** is described in *AVIATOR Wireless Handset menus* on page 45.
  For an overview of the keys and display, and explanation of keys and display symbols, see *AVIATOR Wireless Handset keypad and display* on page 15.
- **The web server** is described in *Using the web server* on page 77.

AVIATOR Wireless Handset functions

Handling calls

Handset ready

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

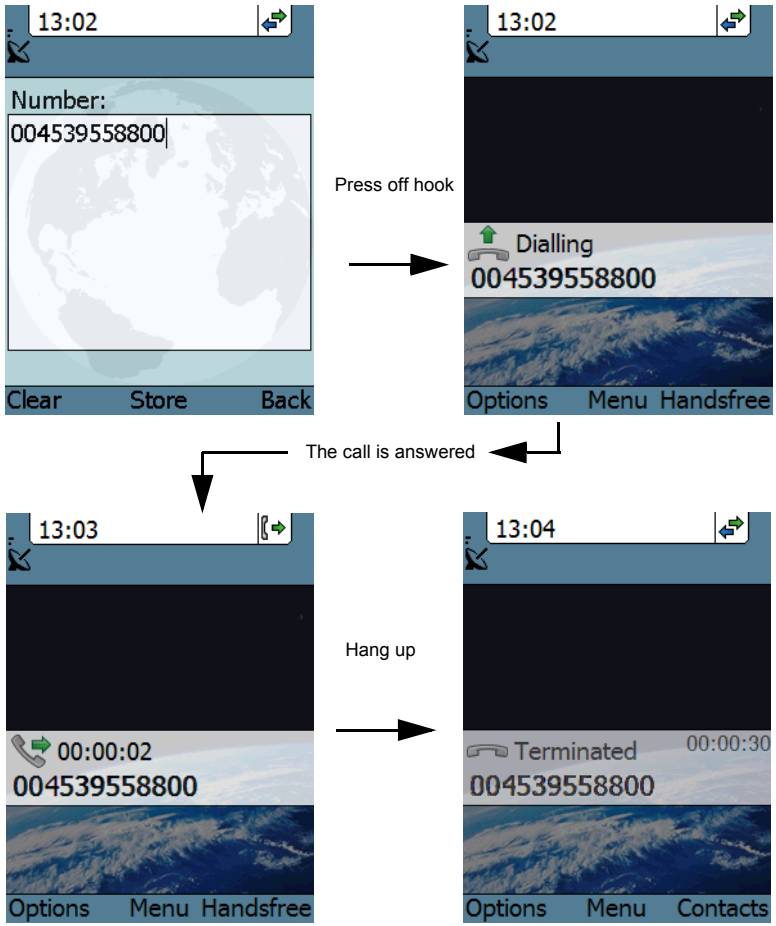


To make a call

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

Note If the handset is in the cradle while you make the call, the mode will automatically be hands-free (default function). For further information, see *To set up the function of the cradle* on page 60.

The display shows the progress as follows:



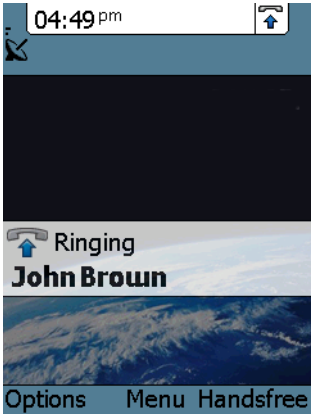
You can also call a number from your contacts or from a list of recent calls:

- **Contacts**: Press the right select key from the main 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), press ↘ from the main screen. Press ↘ again to call the selected number.

For information on how to make calls using a SwiftBroadband unit, see *Making a call using a SwiftBroadband unit* on page 36.

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 , or by removing the handset from the cradle. For information on cradle detection, see *To set up the function of the cradle* on page 60.

Note

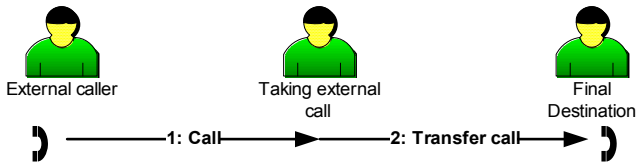
If the handset is in the cradle while you answer the call, the mode will automatically be hands-free (by default).

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

You can see unanswered calls under **Call log** in the AVIATOR Wireless Handset menus or in the web interface.

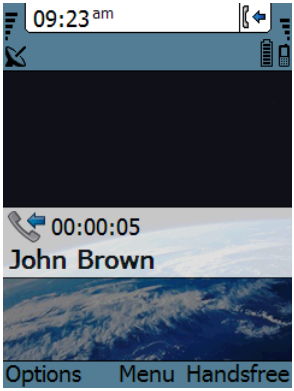
To transfer a call

When you receive a call, you can transfer it to another phone connected to the terminal. The most commonly used scenario is that you make a blind transfer. This means that you transfer the call directly to a new number, without talking to the new number before putting the call through.

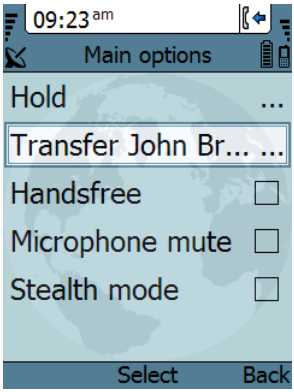


To transfer a call, do as follows:

1. Having taken the call, you press **Options**.

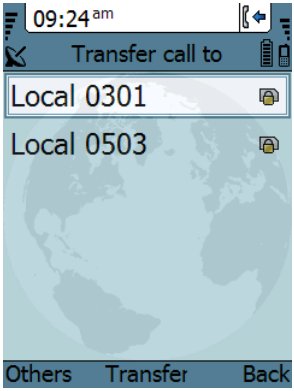


2. Scroll to **Transfer <number to transfer>** and press **Select**.



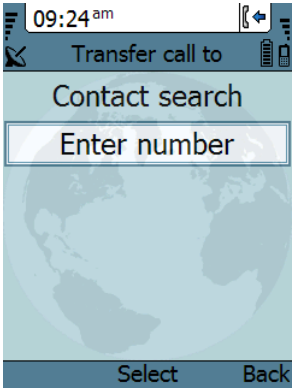
3. If the local numbers are entered in the phone book, the display shows the local numbers available for transferring the call.

   In the example you can transfer the call to one of the local phones Local 0301 or Local 0503.



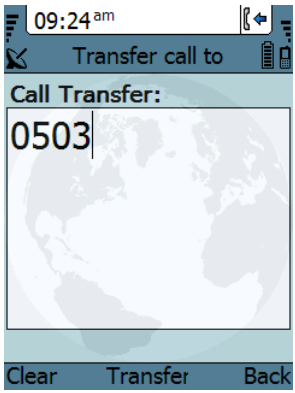
4. If there are no entries for local phones in the phone book, select **Enter number** and press **Select**.

   In the example the call is transferred to the local phone 0503.



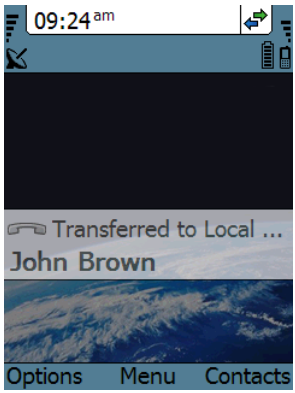
5. Enter the local number, in this case **0503**, and press **Transfer**. The SwiftBroadband unit makes sure that the call is transferred properly to the new local number.

   The phone with the local number you dialed starts to ring.



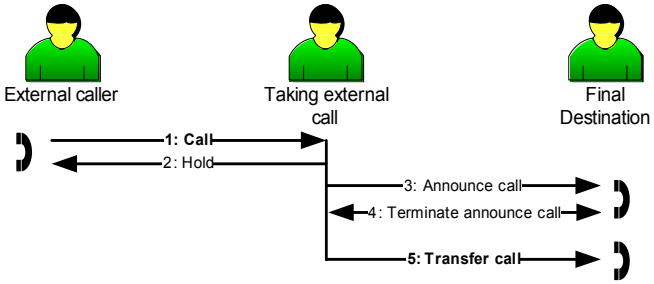
6. The incoming call is handed over to 0503.

   When the call is taken, it is established between the initial caller and the new recipient



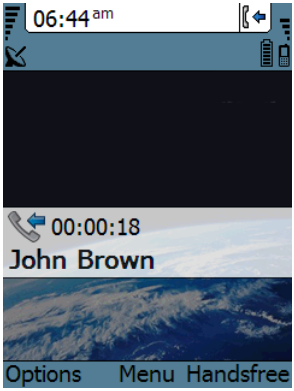
To transfer a call with announcement

When transferring a call, you can put the current call on hold, call the new number and announce the call to be transferred, terminate the announcement call and then transfer the original call.

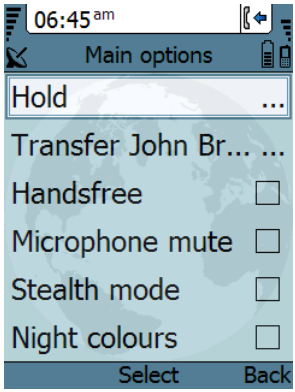


To transfer a call with announcement, do as follows:

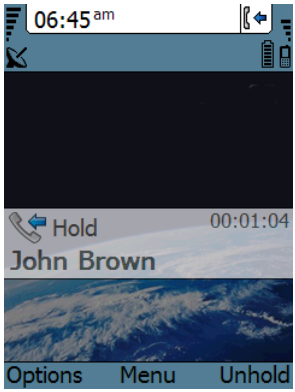
1. Having taken the call, you press **Options**.



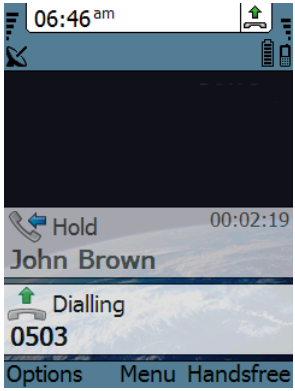
2. Select **Hold** and press **Select**.



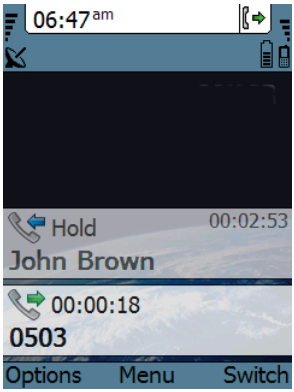
3. The incoming call is put on hold.
4. Select **Enter number** to enter the local number you want to transfer the call to or select **Contact search** to select a number from the **Contacts** list.



5. In this example the original call is transferred to the local phone 0503. The phone with the local number you dialed starts to ring.



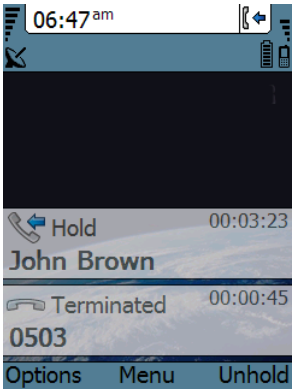
6. When 0503 picks up the call you can announce the original call that is on hold.



7. To be able to transfer the original call that is on hold, the announcement call to the local number must be terminated, either by you or the final recipient. This is to free the line for the original call.

   Press the **on-hook key** to terminate the announcement call, in this example the call to 0503.

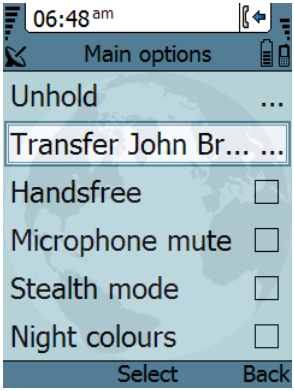
   In case you need to talk to the original caller again, press **Switch**.



8. If you wish to talk to the original caller again before transferring the call, select **Unhold**.

   Select **Transfer** to transfer the original caller.

   Proceed as described in *To transfer a call* on page 30.



Note The SwiftBroadband system only supports one external call at a time.

To end or reject a call

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

When the handset is in hand-held mode, you can also end the call by placing the handset in the cradle.

Making a call using a SwiftBroadband unit

When making a call with the AVIATOR Wireless Handset using a SwiftBroadband unit you use the SwiftBroadband network and its functionality.

To make a call from a handset connected to a SwiftBroadband unit

To make a call from a phone or handset connected to a SwiftBroadband unit, dial

00 <country code> <phone number> followed by  or **#**.

Example: To call +45 39558800,
dial **00 45 39558800** followed by  or **#**.

Note

The default call type is set up in the web interface of the SwiftBroadband unit. However, you can select the call type for your call, using a prefix.

Dial **1** ∗ before the number to make a Standard Voice call.

Dial **2** ∗ before the number to make a 3.1 kHz Audio call.

Example: Dial **2** ∗ **004539558800** to make a 3.1 kHz Audio call to.

To make a call to a handset connected to a SwiftBroadband unit

Note

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

To make a call to a handset connected to the SwiftBroadband unit, dial

+870 <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 SwiftBroadband unit you are calling.

Example: If you are calling from Denmark and the mobile number for 3.1 kHz Audio is 772112345 on your SwiftBroadband unit, and you want to make a call to the SwiftBroadband unit using 3.1 kHz Audio, dial **00 870 772112345**.

To see the mobile numbers of your SwiftBroadband unit, refer to the information included with your airtime subscription.

Note There are two Voice numbers, one for Standard Voice and one for 3.1 kHz Audio.

For more information on call types and the SwiftBroadband unit, refer to the user manual for your SwiftBroadband unit.

Making a secure call from the AVIATOR Wireless Handset

The AVIATOR Wireless Handset supports secure peer-to-peer voice calls. You can make secure calls to all IP phones complying with the ZRTP version used by the AVIATOR Wireless Handset, see the Installation and maintenance manual. Standard X.509 certificate has been added for Stronger Authentication (SA) for closed user groups.

To configure the AVIATOR Wireless Handset for secure calling

Note **SIP Service Provider details:** In order to make a secure call you must have a SIP account at a SIP Service Provider. You must make sure

- that the Service Provider allows for the ZRTP protocol
- if calling from a SwiftBroadband unit, the Service Provider allows for RTP streaming through the Service Provider's server.

You need your SIP account details to configure the AVIATOR Wireless Handset. The configuration is the same, whether you use the AVIATOR Wireless Handset with a SwiftBroadband unit or a router.

To configure a router or a SwiftBroadband unit do as follows:

Unit	Description
Router	Please refer to the manufacturer's documentation.
SwiftBroadband unit	The configuration of the IP connection of the SwiftBroadband unit determines the speech quality of the AVIATOR Wireless Handset. The following two examples show a high-quality and a best-effort quality. • Secure connection with **guaranteed high speech quality**: Start a Streaming data session at 64 kbps. The AVIATOR Wireless Handset is by default configured to G.711 codec (64 kbit). • Secure connection with **best-effort speech quality**: Start a Standard data session. In this case set the codec priority in the SIP profile of the AVIATOR Wireless Handset to G.729. For details see *To edit a SIP profile* on page 69.

To configure the AVIATOR Wireless Handset do as follows:

1. Make a SIP profile using the SIP account details SIP server, user name and password. For instructions see *To add a new SIP profile* on page 66.
2. Select **SIP** from the main menu, then select the new SIP profile you want to use for communication.
3. Select **Connect**. The handset registers itself, and you are ready to make a secure call.

Typically you make the call and then go into secure mode by selecting **Go secure** in the menu **Main options**. You can go into secure mode anytime during a call. When using the AVIATOR Wireless Handset in networks where

all calls must be secure, you can set the handset to start a secure session automatically each time when a call is initiated and the peer AVIATOR Wireless Handset goes off-hook. For further details see ***To set call services (Noise cancellation and Automatic secure)*** on page 59.

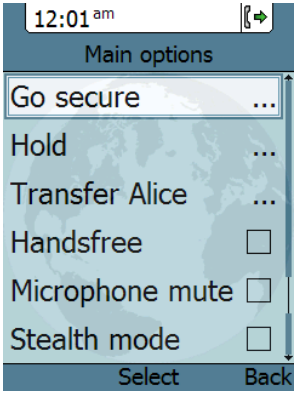
To make a secure call

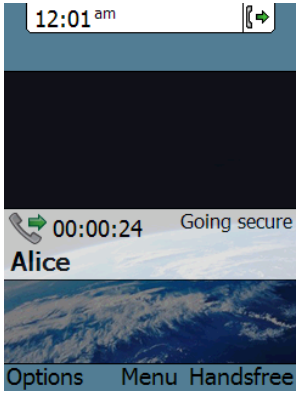
1. To make a secure call, type the phone number and press or **#**.
2. To go secure, the caller or the person called presses **Main options,** then **Go secure** to initiate a secure session**.** Then the display shows **Going secure**.

   The encryption keys are negotiated, the peer is authenticated and the voice streaming is en- and decrypted.

   The key negotiation may take up to 30 seconds. During this period, voice is muted.

   Upon successful key negotiation and peer authentication, you hear an audio signal in the AVIATOR Wireless Handset to inform you that a Short Authentication String (SAS) is shown in the display. This string consists of a combination of 4 digits and characters (symbols).

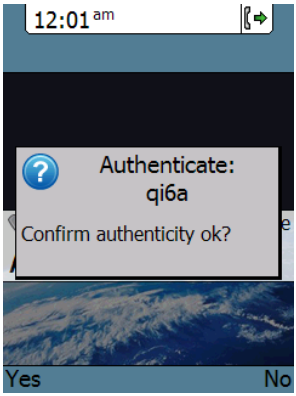




3. You must verify the string. Compare your own string with the peer string.

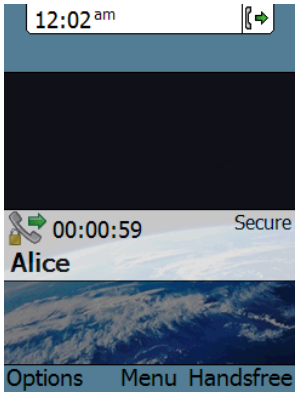
   Example: Say the first 2 symbols and the peer (i.e. the person called) says the last 2 symbols.

   If the comparison of the SAS is ok, press **Yes.**



Note If the 4-digit SAS is **not identical**, press **No** when asked to confirm SAS authentication. The secure session is aborted and the call is terminated.

4. The line is secure and the display shows **Secure** and a Padlock. Voice streaming is encrypted and decrypted.

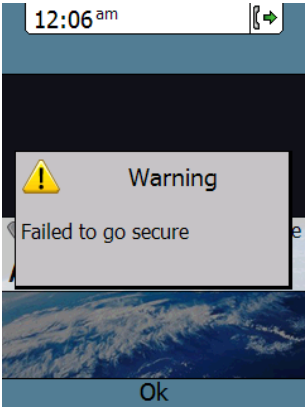


Note The AVIATOR Wireless Handset supports one secure call at a time. If there is a secure call established and put on hold, you cannot establish another secure call.

Failed secure session

A secure session may fail because the negotiation protocol fails or because the verification of authentication certificates fails.

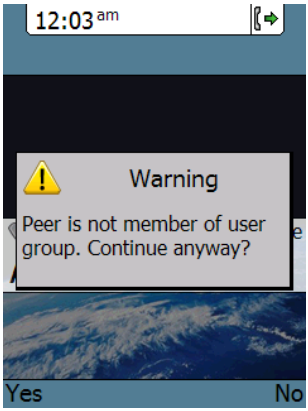
If the negotiation protocol fails, the status window shows a warning. You hear an audio signal in the AVIATOR Wireless Handset to inform you that the session failed to go secure.



- Press **OK** to continue the call as a non-secure session.

Failed authentication

If the verification of authentication certificates fails (the peer is not member of the closed user group), the status window shows a warning. You hear an audio signal in the AVIATOR Wireless Handset to inform you that the peer is not a member of the closed user group.



- Press **Yes** to continue the call as a secure session. Then a 4-digit SAS is shown in the display. Continue as described in step step 3 in *To make a secure call* on page 39.
- Press **No** to terminate the call.

Quick settings

To control the volume in the earpiece

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

To mute the microphone

You can mute the microphone of the AVIATOR Wireless Handset. To mute the microphone during a call, do as follows:

1. Select the left **Options** menu.
2. Select **Microphone mute**.

To lock the keypad

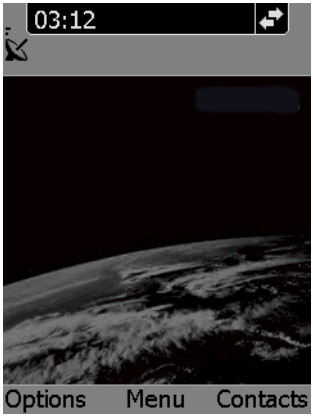
You can lock the keypad of the AVIATOR Wireless Handset. When the keypad is locked you can still answer incoming calls. To lock the keypad, do as follows:

1. Select the left **Options** menu.
2. Select **Lock keypad**.

To unlock the keypad, do as follows:

1. Press the center select key.
2. Press the left select key.

To use night mode



The display has a night mode for operation in low light areas. In night mode, the colors are changed to make the display more suitable for night operation. The AVIATOR Wireless Handset can be set to automatically switch between day and night mode.

If the automatic switch between day and night mode is not selected, you can activate the night mode manually.

To activate night mode, do as follows:

1. Select the left **Options** menu.
2. Select **Night mode**.

To set the AVIATOR Wireless Handset to automatic switch between day and night mode see *To set up the display* on page 61.

To use stealth mode

Stealth mode is used when the AVIATOR Wireless Handset should not be noticed. In stealth mode you can turn off all lights in the display and/or sounds for external events. Note, however, that the keypad will still light up when you press a key.

To activate stealth mode, do as follows:

1. Select the left **Options** menu.
2. Select **Stealth mode**.

Note Stealth mode is only activated for the items you have selected in the menu **Settings**, **Stealth**. See *To set up stealth mode* on page 58.

How to enter text in the AVIATOR Wireless Handset

When entering your contacts in the AVIATOR Wireless Handset you use the keypad to enter the names.

Press * before the alpha-numeric key to switch between lower case, upper case and numbers.

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 left select key **Clear**. Hold the key to delete all the text.

For a list of the key-functions in text-mode, see the table on page 18.

Example

To type “He”, do as follows:

1. Press * one or two times until the lower left corner of the display shows upper case letters.
2. Press the key **4 ghi** two times to display the letter **H**.
3. Press * again until the lower left corner of the display shows lower case letters.
4. Press the key **3 def** two times to display the letter **e**.

Using a headset

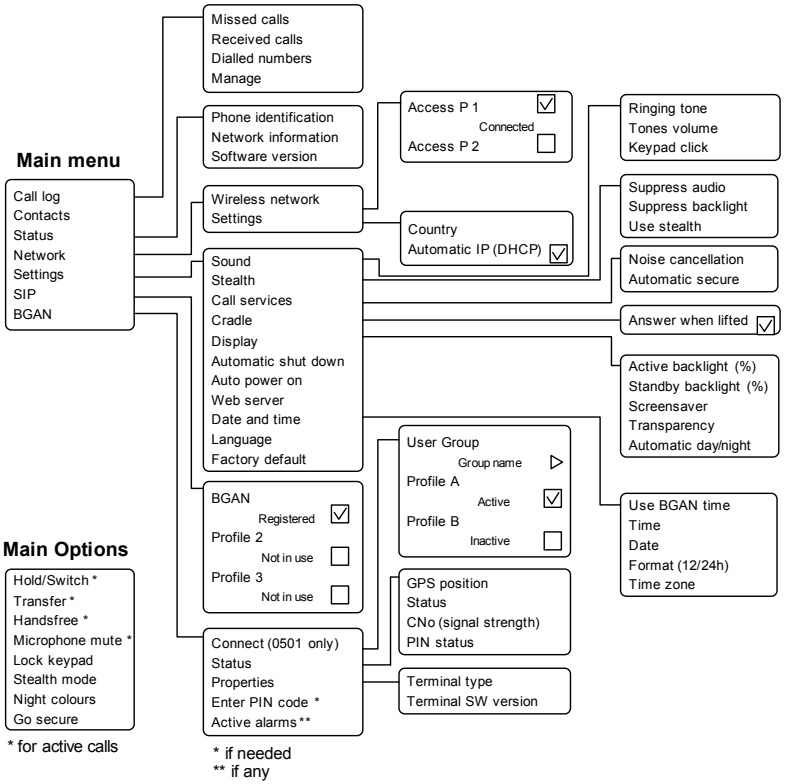
You can connect a headset to the AVIATOR Wireless Handset as follows:

Plug the headset jack into the jack connector on the side of the handset.

The microphone and speaker of the AVIATOR Wireless Handset are automatically disabled and the headset is used instead.

AVIATOR Wireless Handset menus

The menu system gives you access to the user parameters of the AVIATOR Wireless Handset. To access the menu system from the main screen, press the center select key. Move around in the menus with the arrow keys and select with the select keys. Leave the menu system by pressing the on hook key.



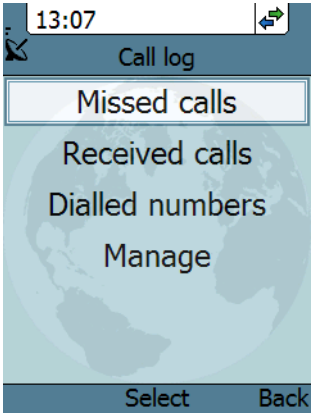
Call log

The AVIATOR Wireless Handset logs all calls and dialled 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

To display the call log do as follows:

1. From the main menu, select **Call log**.
2. Select the list you want to see.
3. If you want to see details for a call, move to the call and select **View**.



To add a number from the call log to the Contacts

To add a number from the call log to the Contacts do as follows:

1. In the call log, go to the call and select **Options.**
2. Select **Add to contacts**.
   Note that the Contacts list can hold maximum 100 entries.
3. Type in the name of your new contact and select **OK**.

To delete a number from the call log

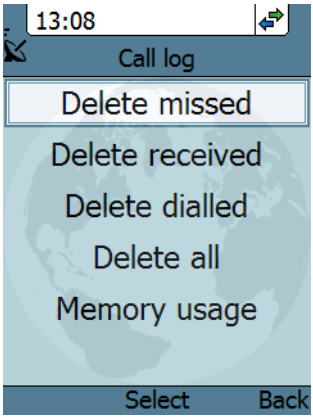
To delete a number from the call log do as follows:

1. In the call log, go to the call and select **Options.**
2. Select **Delete**.
3. Select **Yes**.

To delete all numbers in a call log folder

To delete all numbers in the call log, or all numbers in a sub-folder of the call log, do as follows:

1. In the call log menu (not in one of the sub-folders) select **Manage**.
2. Select the folder you want to empty.
3. Select **Yes**.



To see memory usage in the call log

To see the number of stored entries and the maximum allowed number of entries, do as follows:

1. In the call log menu (not in one of the subfolders) select **Manage.**
2. Select **Memory usage**.

Contacts

Use the contact list of the AVIATOR Wireless Handset to find a contact and make a call or manage your contacts. You have access to the contacts in the SBB phone book.

To display your contacts

To display your contacts, do one of the following:

- From the main screen, press the right select key,
- from the main screen, press ▼, or
- from the main menu, select **Contacts**.

If a contact is from the SBB phone book it is marked with  . This means you cannot edit or delete the entry.

To call a contact

To call a contact, do as follows:

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, do as follows:

1. In your Contacts list, press the left select key, **Options**.
2. Select **Add**.
   Note that the Contacts list can hold maximum 100 entries.
3. Type in the name of your contact and select **OK**.
   The name can be maximum 32 characters.
   For information on how to enter text, see *How to enter text in the AVIATOR Wireless Handset* on page 44.

4. Scroll to **Number** and select **Edit**.
5. Type in the number of your contact and select **OK**.
   The number can be maximum 32 characters.

To edit a contact

To edit a contact, do as follows:

1. In your Contacts list, scroll to the contact you want to edit.
2. Press the left select key, **Options**.
3. Select **View/Edit**.
4. Select **Edit**.
5. Change the name of your contact and select **OK**.
   For information on how to enter text, see *How to enter text in the AVIATOR Wireless Handset* on page 44.
6. Scroll to **Number** and select **Edit**.
7. Change the number of your contact and select **OK**.

To delete a contact

To delete a contact, do as follows:

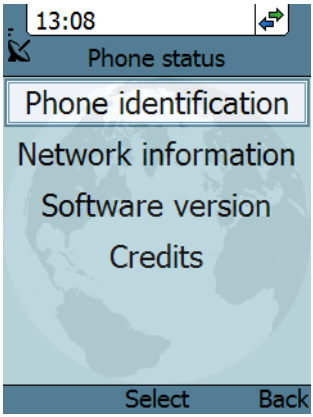
1. In your Contacts list, scroll to the contact you want to delete.
2. Press the left select key, **Options**.
3. Select **Delete**.
4. Press the left select key, **Yes**.

The contact is now deleted from your Contacts list.

Status

In the Status section you find the serial number of the AVIATOR Wireless Handset and the network settings. Use this menu to display the software version of the AVIATOR Wireless Handset.

To view status for the handset, do as follows:



1. From the main menu, select **Status**.
2. Select **Phone identification** to see the serial number of the AVIATOR Wireless Handset.
3. Select **Network information** to see:
   - DHCP Enabled/Disabled
   - IP address
   - Subnet mask address
   - Default gateway
   - Physical address (MAC)
4. Select **Software version** to see the version of the AVIATOR Wireless Handset software.

Network

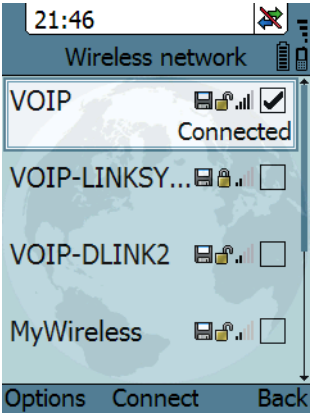
Note The Wireless network menu described in the following sections is only available in the wireless handset. For the wired handset, go to *To select the IP address mode* on page 56.

To connect the AVIATOR Wireless Handset to the wireless network

If the handset has been connected to the wireless access point before, it will automatically attempt to establish a connection as soon as the access point is within reach.

If it is the first time you connect the handset to the wireless access point, you need to manually connect to the access point.

To connect the AVIATOR Wireless Handset to the access point, do as follows:



1. Start up your wireless access point.
2. Start up the handset.
3. Enter the menu system and select **Network > Wireless network**.
   A list appears with all wireless access points within reach, together with previously connected access points.
   - : the handset already has a profile for this access point.
   - : the access point uses encryption.
   - : the access point does not use encryption.

   The connected access point (if any) is always placed at the top.

4. Select **Connect** at the network you want to connect to.

   If your access point does not use encryption, the handset will automatically connect and create a new profile for the access point.

5. If your access point uses encryption and it is the first time you connect, you are prompted for security settings, select **OK** to enter the **Profiles** menu. Set the security settings as described in *To connect the AVIATOR Wireless Handset to the wireless network* on page 51.

When the profile matches the access point, and you have selected **Connect**, the AVIATOR Wireless Handset attempts to establish a connection. If the access point is connected to a SwiftBroadband unit, see *Using a SwiftBroadband unit* on page 9 for information on how to connect to the SBB network.

When the handset is ready for use, you see the handset ready symbol in the top right corner of the display.

Normally a new profile is automatically created when you connect to an access point.

To edit a Wireless network profile

To edit a Wireless network profile, do as follows:

1. From the main menu, select **Network > Wireless network**.
2. Select the access point you want to change profile for.
3. Press the left select key, **Options**.
   Note that if no profile is defined for the selected access point, this menu will only show Connect and Manage.
4. Select **Edit/View profile**.
   The SSID (name of the Wireless network) and security mode of the selected access point are automatically detected by the handset.
   For security mode WEP set the following (see also the documentation for Wireless Access Point):
   - Authentication: Select Open system or Shared key
   - Encryption level: Select 64-bit or 128-bit
   - WEP key index: Select 1, 2, 3 or 4.
   - Use hexadecimal key: Select whether you want to enter the encryption key in hexadecimal numbers or text.
   - WEP key: Enter WLAN encryption key.

   For security mode WPA-PSK-TKIP or WPA2-PSK-AES set the following (see documentation for Wireless Access Point):
   - Use hexadecimal key: Select whether you want to enter the encryption key in hexadecimal numbers or text.
   - Encryption key: Enter WLAN encryption key.
5. Select one of the following:
   - **Connect** (left key) if you want to connect immediately to the access point, or
   - **Back** (right key) if you want to save the profile for later.

To delete a Wireless network profile

To delete a Wireless network profile, do as follows:

1. In the Wireless network list, go to the access point for which you want to delete the profile.
2. Select **Options** (left select).
3. Select **Delete profile**.
4. Select **Yes** (left select).

The profile for the selected access point is now deleted. If the access point uses encryption, your handset will not be able to connect to the access point unless the security settings are entered again.

To delete all Wireless network profiles

To delete all Wireless network profiles, do as follows:

1. From the Wireless network list, select **Options** (left select).
2. Select **Manage**.
3. Select **Delete all profiles**.

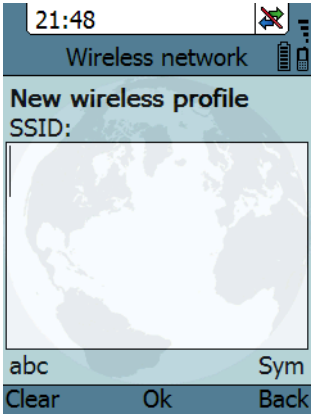
Important When you delete all profiles you will not be able to connect to any access point using encryption, unless you enter the security settings again!

4. Select **Yes** (left select) to confirm.

To create a new Wireless network profile

Normally a new profile is automatically created when you connect to an access point. If needed, you can define a profile for an access point that is not currently within reach.

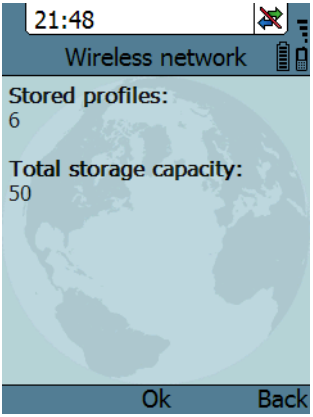
To create a new Wireless network profile, do as follows:



1. From the Wireless network list, select **Options** (left select).
2. Select **Manage**.
3. Select **Add profile**.
4. Type in the SSID of the access point.
5. Select **OK**.
   A new profile is now created
6. Enter the security information for the access point. For further information, see *To edit a Wireless network profile* on page 53.

To see memory usage in the list of Wireless network profiles

To see the number of stored profiles and the maximum allowed number of profiles, do as follows:



1. From the Wireless network list, select **Options** (left select).
2. Select **Manage**.
3. Select **Memory usage**.

To set the country for Wireless network use

To make sure you have the right settings for the country your AVIATOR Wireless Handset is currently located in, you have to enter the country in the handset.

Important In some countries, the use of Wireless networks (WLAN) is not allowed. Before continuing, make sure WLAN is allowed and licensed in the country where you intend to use it.

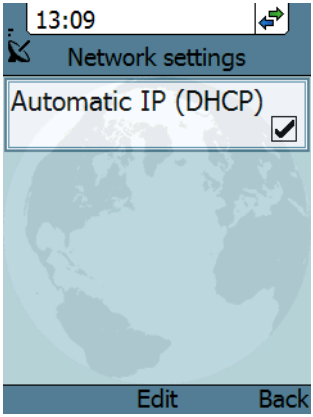
To enter the country, do as follows:

1. Select **Network > Settings > Country**.
2. Scroll to the country your handset is located in and select it.
   If the country is not in the list, select **Other**.

To select the IP address mode

You can select whether or not the AVIATOR Wireless 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.

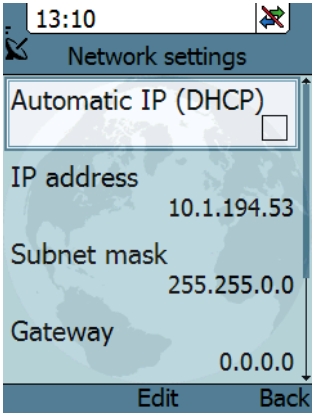
To select the IP mode, do as follows:



1. From the main menu, select **Network**.
2. Select **Settings**.
3. Do one of the following:
   - If the AVIATOR Wireless Handset should use DHCP to automatically obtain an IP address, check the box next to **Automatic IP (DHCP)** and select **Back** or press the on hook key to exit completely.
   - For a static IP address, clear the box next to **Automatic IP (DHCP)**. Then select **Yes** to confirm and continue to the next step.

4. If you selected not to use DHCP, scroll down to **IP address**.
5. Click **Edit**, type in the IP address and select **OK**.
6. Continue to **Subnet mask**, **Gateway**, **Primary DNS** and **Secondary DNS** and enter them in the same way.
7. Select **Back** or press on hook to exit.

   The handset will now use the static information you entered, instead of automatic IP address allocation using DHCP.



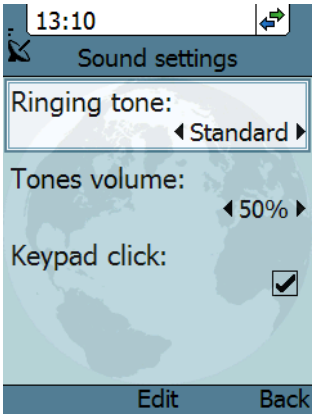
Settings

To access the Settings menu, select **Settings** from the main menu.

To adjust the sound

You can adjust the ringing tone, the tone volume and the keypad click.

To adjust the sounds of the handset, do as follows:

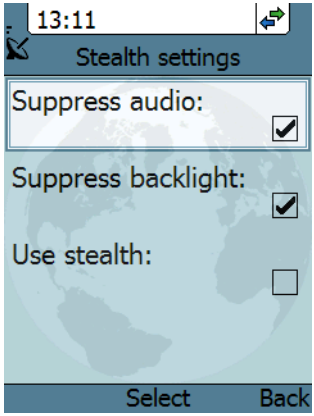


1. From the **Settings** menu, select **Sound**.
2. Use the arrow keys to move to the sound you want to adjust.
3. For **Keypad click**, select **Edit** to change the setting.
4. For the other settings, use the keys ◀ and ▶ to change the setting, or select **Edit**, select the setting you want and select **OK**.

To set up stealth mode

Stealth mode is used when the AVIATOR Wireless Handset should not be noticed. In stealth mode you can turn off all lights in the display and/or sounds for external events. Note, however, that the keypad will still light up when you press a key.

To configure and go into stealth mode, do as follows:



1. From the **Settings** menu, select **Stealth**.
2. Move to **Suppress audio** and/or **Suppress backlight** and select **Edit** to change the setting.

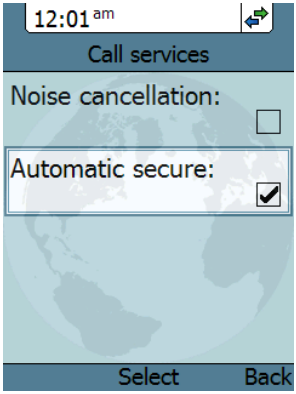
   Note These settings are only activated when **Use stealth** is checked.
3. Move to **Use stealth** and press **Edit** to check/clear the box.

4. When stealth is set up and **Use Stealth** is selected in this menu, you can activate and deactivate it from the main screen by selecting **Options > Stealth**.

To set call services (Noise cancellation and Automatic secure)

The AVIATOR Wireless Handset has efficient noise suppression software which you can switch on or off, depending on the noise level in your environment. Noise cancellation should only be selected when the handset is used in a noisy environment.

To set up Noise cancellation, do as follows:



1. From the **Settings** menu, select **Call services.**
2. Press **Select** for **Noise cancellation**.

When the AVIATOR Wireless Handset is used in networks where all calls must be secure, it can be set up to start a secure session automatically each time when a call is initiated and the peer AVIATOR Wireless Handset goes off-hook.

To set up **Automatic secure**, do as follows:

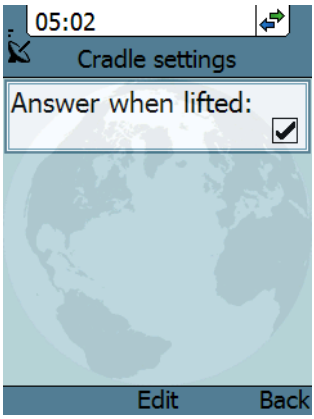
1. From the **Settings** menu, select **Call services.**
2. Press **Select** for **Automatic secure** for all calls to be encrypted secure calls.

Note If you want to make a single secure call do not select **Automatic secure**. Use the option **Go secure**, proceed as described in *To make a secure call* on page 39.

To set up the function of the cradle

The AVIATOR Wireless Handset can be operated as hand-held or hands-free. You can select whether the handset should detect the cradle or not.

To set up the cradle settings, do as follows:



1. From the **Settings** menu, select **Cradle**.
2. To have the handset detect whether or not it is in the cradle, check the box. This is the default mode. The function is as follows:
   - You can answer calls by removing the handset from the cradle, and terminate a call by putting the handset back in the cradle.
   - The handset automatically changes to hands-free when you make or answer a call with the handset in the cradle.
   - If you take the handset from the cradle during the call, it automatically changes to hand-held operation.
   - In hand-held mode, when you put the handset in the cradle, the call is terminated.
   - In hands-free mode, when you put the handset in the cradle the call is not affected.
3. To make the handset independent of the cradle, clear the box.
   This means you must always use  or **#** and  to start and end calls, and you can only enable or disable hands-free operation by using the keypad.

To set up the display

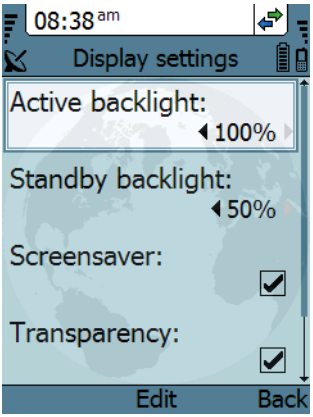
You can customize the following items in the display:

- 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 AVIATOR Wireless Handset should use a screen saver when it is not used for one minute.
- Transparency can be selected.
- Automatic day/night mode 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. You can still start it manually from the Main Options menu when needed. For further details see *To use night mode* on page 43.

To set up the display settings, do as follows:

1. From the **Settings** menu, select **Display**.
2. Move to the setting you want to change.
3. For the backlight settings, use the keys ◀ and ▶ to change the percentage.
4. For the remaining settings, select **Edit** to and select or deselect the item.

Note Use the down key to scroll down to Automatic Day/night mode.



To disable or set automatic shut down

Per default the wireless AVIATOR Wireless Handset is set to shut down automatically if it does not receive a signal from a wireless access point for a certain period of time and is outside the cradle.

To disable or set automatic shut down, do as follows:

1. From the **Settings** menu, set or remove the check mark for **Automatic shut down**.
2. Use the keys ◀ and ▶, or press **Edit** to select the wanted time interval before automatic power off. You have the following choices:
   - Disabled
   - 2, 5, 15, 30 or 60 minutes (default value: 30 minutes)
3. Select the time span.
4. Press **Back** to return to normal operation.

As long as the handset sits in a powered cradle, it will not automatically shut down.

To disable or set auto power on

Per default the wireless AVIATOR Wireless Handset is set to automatically power on when it is in the cradle and the cradle is powered on. Then you do not have to switch on the handset manually.

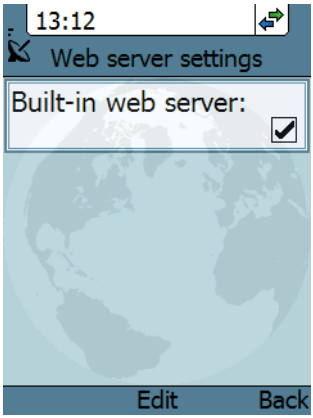
To disable or set automatic power on, do as follows:

1. From the **Settings** menu, set or remove the check mark for **Auto power on**.
2. Press **Back** to return to normal operation.

To enable or disable the web server

A web server is built into the AVIATOR Wireless Handset. It is primarily used for uploading software and for editing contacts. You can enable or disable the web server.

To enable or disable the built-in web server, do as follows:



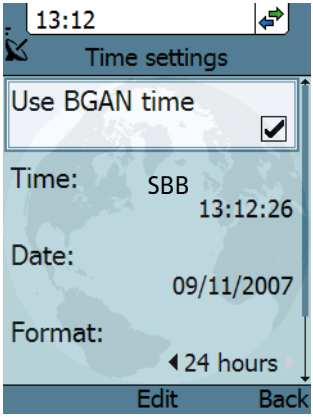
1. From the **Settings** menu, select **Web server**.
2. Select **Edit** to enable or disable the web server. The default settings is enabled (checked).

For information on the web server, see *Using the web server* on page 77.

To set the date and time

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

To set the date and time, do as follows:



1. From the **Settings** menu, select **Date and time**.
2. If your handset is connected to a SwiftBroadband unit and you want to use the UTC time received from the satellite, select **Use SBB time**. Then leave the menu.
3. If you want to set the date and time manually, clear the **Use SBB time** box. Then continue to the following steps.

4. To change the time, move to **Time:** and press **Edit**. Then type in the new time and select **OK**. The new time is activated immediately.
5. To change the date, move to **Date:** and press **Edit**. Then type in the new date and select **OK**.
6. To switch the time format between 24h and 12h, use the keys ◀ and ▶, or select **Edit** and select the wanted format.
7. To change the time zone, use the keys ◀ and ▶, or select **Edit** and select the wanted time zone.

Note Use the down key to scroll down to the last item in this sub menu.

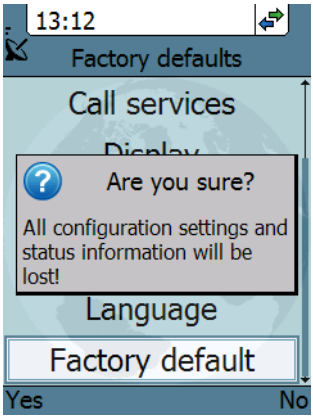
To select the language

This setting is for future use. Only English language is currently available.

To apply factory default settings

You can reset the AVIATOR Wireless Handset to factory default settings.

To return to factory default for all settings, do as follows:



1. From the **Settings** menu, select **Factory default**.

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

2. Select **Yes**.

   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.

SIP telephony and profiles

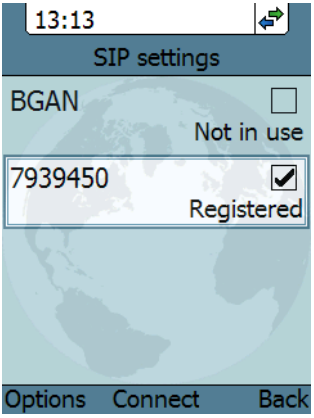
The AVIATOR Wireless Handset has an integrated SIP (Session Initiation Protocol) client used for SIP telephony between the handset and the SwiftBroadband unit, which has an integrated SIP server, or another SIP server. How to set up the SIP profile depends on your subscription and the SIP server and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

To activate a SIP profile

The default profile is the SBB profile, which is used when the AVIATOR Wireless Handset is connected to a SwiftBroadband unit.

To activate a profile, do as follows:

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



To add a new SIP profile

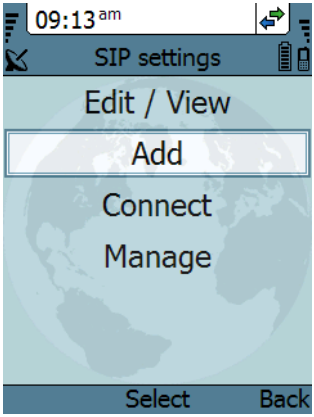
Add a new SIP profile if you want to connect the SIP client of the AVIATOR Wireless Handset to a SIP server. You need to enter several network specific values so the handset can communicate with the SIP server. The AVIATOR Wireless Handset can hold up to 10 profiles.

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, do as follows:

1. In the SIP menu, select **Options** (left select key).
2. Select **Add**.



3. Type in the name to use for the new profile and select **OK**.

   Example: The profile name is New Profile.

4. Move to **SIP server** and select **Edit**.

5. At **Server name / IP:**, select **Edit** again.

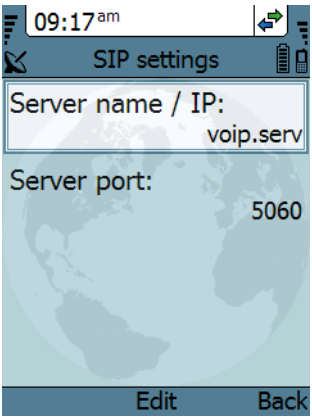
6. Type in the server name (URL) or IP address and select **OK**.

   Example: Server name is voip.serv.

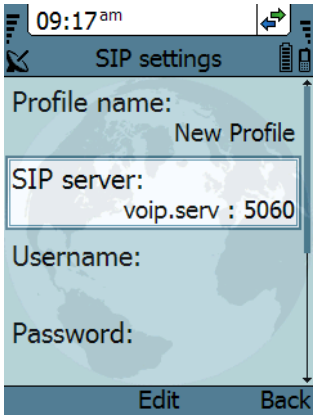
7. Type in the port number for the SIP server and select **OK**.

   Example: Port number is 5060 (default setting),

8. Select **Back** to continue the set up of the remaining parameters.



9. Move to the setting you want to change and select **Edit.** Type in the information and enter with **OK**.



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

- **User name:** When connecting to a SwiftBroadband unit, the user name should be the same as the local number for the handset.
- **Password:** When connecting to a SwiftBroadband unit, the password must match the AVIATOR Wireless Handset password entered in the terminal.
- **Codec priority:** Select the codec type that should have the highest priority. You may select G.711 or G.729 A/B.
- **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.
- **Reregister every**: This settings sets the time interval in which the AVIATOR Wireless Handset registers with the SIP server it is connected to. If the SIP server is the SwiftBroadband unit, 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 AVIATOR Wireless 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.

10. When you have made the changes, select **Back**.

11. 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

To edit a SIP profile, do as follows:

1. In the list of profiles, go to the profile you want to change and select **Options > Edit/View**.
2. Edit the settings as described in the previous section.

Note For the SBB profile, only the user name and password can be changed. The default user name and password are 0501 and 0501.

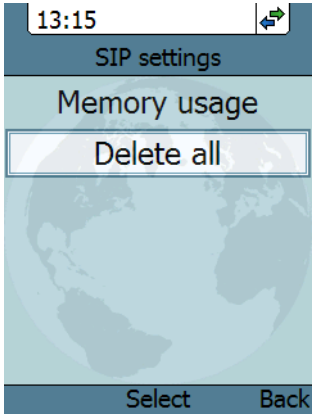
To delete a SIP profile

To delete a SIP profile, do as follows:

1. In the SIP menu, move to the profile you want to delete and select **Options**.
2. Select **Delete**.
3. Select **Yes**.

To delete all SIP profiles

To delete all SIP profiles, do as follows:



1. From the SIP settings menu, select **Options** (left select key).
2. Select **Manage**.
3. Select **Delete all**.

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

4. Select **Yes**.

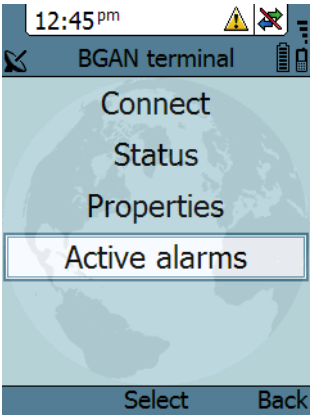
To see memory usage in the list of SIP profiles

To see the number of profiles in the list and the maximum allowed number of profiles, do as follows:

1. From the SIP settings menu, select **Options** (left select key).
2. Select **Manage**.
3. Select **Memory usage**.

Information from the SwiftBroadband unit (BGAN terminal)

When the AVIATOR Wireless Handset is.connected to a SwiftBroadband unit, the handset provides a dedicated **BGAN** menu. Through this menu you have access to a subset of controls and views of the SwiftBroadband unit.



You find the following items in this menu:

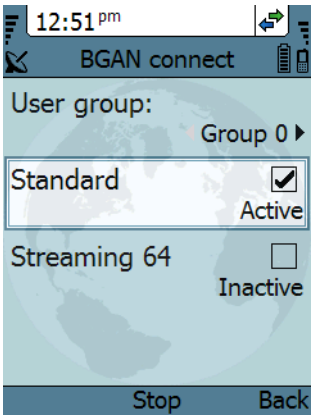
- **Connect**: You can use the handset with the local number 0501 to start and stop IP background or streaming connections for all network user groups.
- **Status** with current GPS position, status, signal strength and PIN status.
- **Properties** with information about the SwiftBroadband unit type and software version.
- **Enter PIN code**: If needed
- **Active alarms** in the SwiftBroadband unit (if any).

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

To start and stop IP background or streaming connections (0501 only)

You can use the AVIATOR Wireless Handset that has the local number 0501 to start or stop data connections set up in the network user groups of the SwiftBroadband unit. The network user groups and types of data connections are configured in the web interface of the SwiftBroadband unit. With this functionality you do not need to connect a PC to the SwiftBroadband unit to start or stop IP background or streaming connections for devices connected to the SwiftBroadband unit.

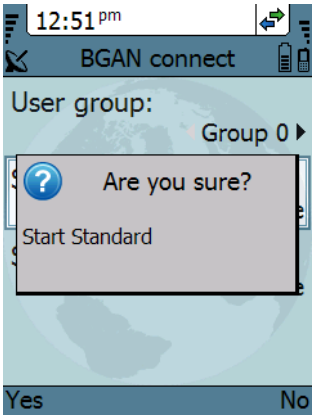
To start and stop IP standard or streaming connections, do as follows:



1. From the **BGAN** menu, select **Connect**.
2. Use the left/right keys to find the network user group for the application you want to start or stop.
3. Use the up/down keys to select the connection you wish to start (Active) or stop (Inactive).
4. Press **Start** to start a connection, or press **Stop** to stop the connection.
5. A confirmation window is displayed. Press **Yes** to continue.

   The AVIATOR Wireless Handset sends a command to the SwiftBroadband unit to start or stop the selected connection. Check the handset at regular intervals that the connection is still running.

   If the connection could not be started by the SwiftBroadband unit, the check mark will be removed, the connection is inactive and the command **Stop** has changed to **Start**.

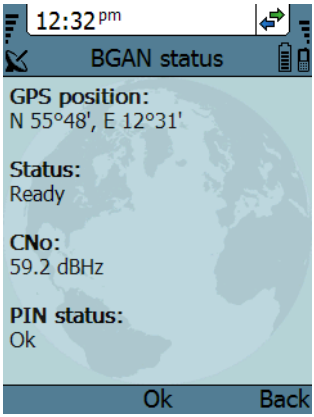


For detailed information about using IP data connections and setting up network user groups with standard and streaming profiles refer to the SwiftBroadband unit's user manual.

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 BGAN status information

To see the BGAN status, do as follows:



1. From the **BGAN** menu select **Status**.
   The status menu shows the following information:
   - **GPS position** shows the current position of the SBB system.
   - **Status** shows the status of the SBB connection, for example Ready or Registering.
   - **CNo** shows the signal strength of the SBB connection (the carrier-to-noise ratio).
   - **PIN status** shows status of the PIN, for example whether the terminal is waiting for a PIN.

To see the SwiftBroadband unit properties

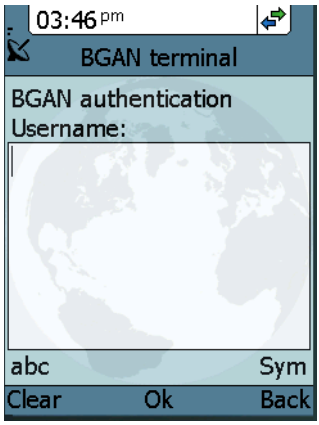
The see the SwiftBroadband unit type and software version, do as follows:

1. From the **BGAN** menu select **Properties**.
2. Click **Ok** or **Back** to return to the **BGAN** menu.

To enter the PIN for the SwiftBroadband unit

Note that this menu item is only available if the SwiftBroadband unit is waiting for a PIN.

To enter the PIN for the SwiftBroadband unit, do as follows:

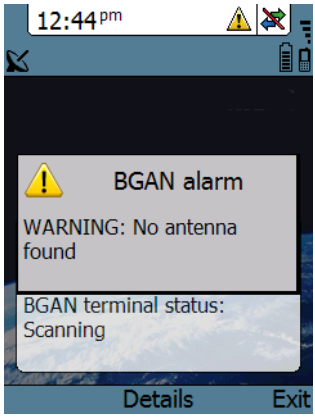


1. From the **BGAN** menu select **Enter PIN code**.
2. Type in the Administrator user name for the SwiftBroadband unit and select **OK**.

   For information on how to type text in the handset, see *How to enter text in the AVIATOR Wireless Handset* on page 44.
3. Type in the Administrator password for the SwiftBroadband unit and select **OK**.
4. Type in the PIN for the SwiftBroadband unit and select **OK**.

Alarm from the SwiftBroadband unit

You can use the AVIATOR Wireless Handset to alert you when there is a critical alarm in the SwiftBroadband unit. A critical alarm (BGAN alarm) covers warnings and error messages issued by the SwiftBroadband unit. The BGAN terminal is here the SwiftBroadband unit.



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

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

Refer to the SwiftBroadband unit's user manual for further details on critical alarms and how to solve them.

Displaying active alarms from the SwiftBroadband unit

Besides the alarm alert you can display a list over active alarms and click for details for each active alarm.

To read SwiftBroadband unit alarms, do as follows:

1. From the main menu, select **BGAN**.
2. If there are active alarms in the SwiftBroadband unit, you can select **Active alarms**.
3. Press **Select** to access the list of active alarms.
4. Scroll to an alarm and press **Select** to display details about this particular alarm.
5. Press **Ok** or **Back** to return to normal phone operation.

Using the web server

This chapter describes how to use the web server in your AVIATOR Wireless Handset system.

Introduction to the web server

The web server is built into the AVIATOR Wireless Handset and is primarily used for uploading software and for editing contacts in the AVIATOR Wireless Handset.

You can access the web server from a computer connected to the SwiftBroadband unit you are using for the handset. Use a standard Internet browser.

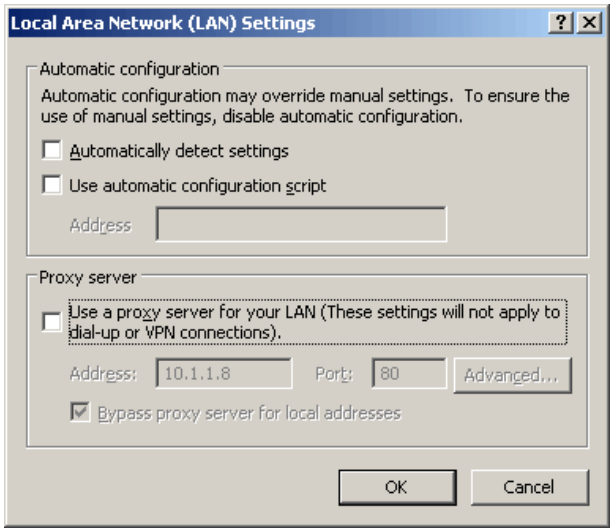
Browser settings

If you are connecting your computer using a LAN or WLAN interface, the **Proxy server** settings in your browser must be disabled before accessing the web interface. Most browsers support disabling of the Proxy server settings for one specific IP address, so you can disable Proxy server settings for the web interface only, if you wish. Consult your browser help for information.

To disable the use of a Proxy server completely, do as follows:

Note The following description is for **Microsoft Internet Explorer**. If you are using a different browser, the procedure may be different.

1. In Microsoft Internet Explorer, select **Tools > Internet Options > Connections > LAN Settings**.



2. Clear the box labeled **Use a proxy server for your LAN**.
3. Click **OK**.

When the proxy server settings are disabled, close and restart your browser.

You may need to change this setting back on return to your Internet connection.

Accessing and navigating the web server

Note The following procedure is valid if the AVIATOR Wireless Handset is used together with a SwiftBroadband unit.

To access the web server of the AVIATOR Wireless Handset

To access the web server from a computer, do as follows:

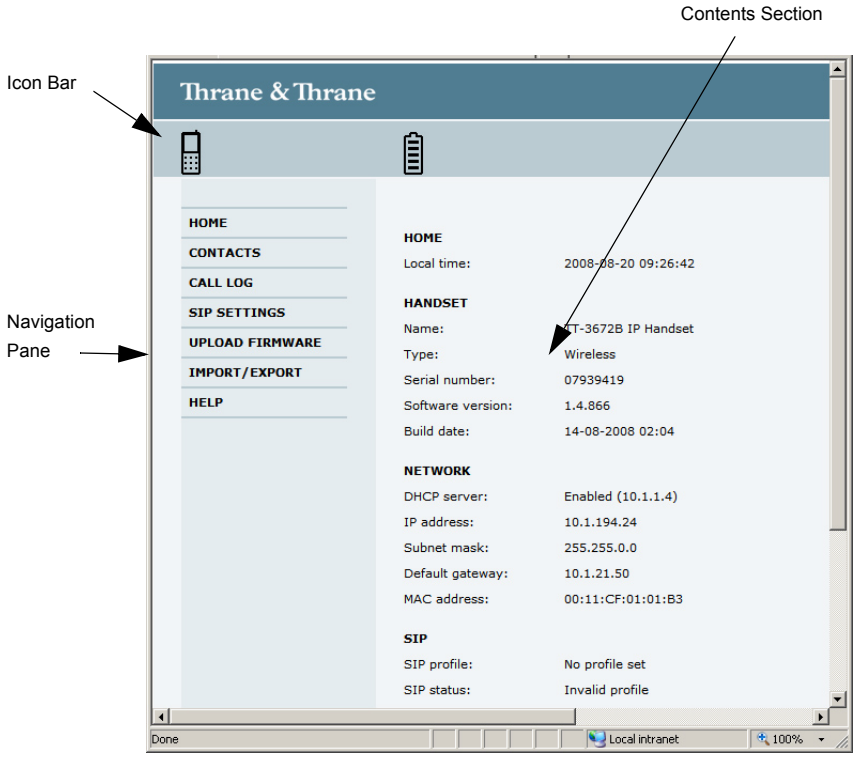
1. Start up your computer, the SwiftBroadband unit and the AVIATOR Wireless Handset.
2. Connect your computer to the SwiftBroadband unit using a standard LAN cable.
3. Connect your AVIATOR Wireless Handset to the SwiftBroadband unit as described in *Getting started* on page 5.
4. Open your browser on the computer and enter the IP address of the AVIATOR Wireless Handset. You find the IP address in the handset menus under **Status > Network information**.

   Another way to access the web interface of the AVIATOR Wireless Handset is to click on the page **SETTINGS > IP handsets > Configure** link in the web interface of the SwiftBroadband unit.

   You can also see the IP address in the web interface of the terminal on the page **SETTINGS > IP handsets**. Move the cursor to **Configure** for the handset. Its IP address is shown in the status line in the lower left corner of the window.

Overview of the web server

The web server consists of the following sections.



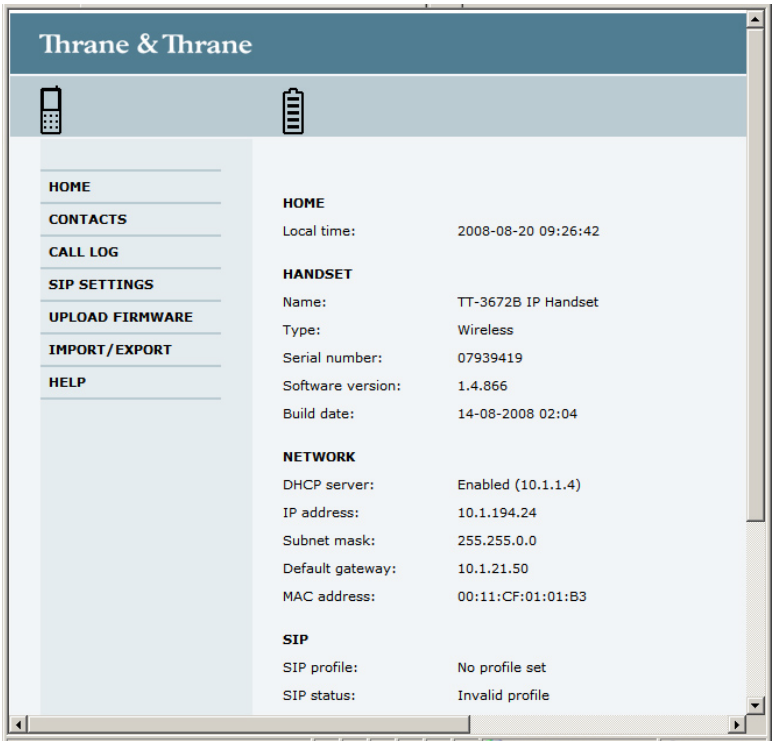
- The **navigation pane** holds the main menu. Clicking an item in the menu opens a submenu in the navigation pane or a new page in the contents section.
- The **icon bar** shows a handset icon to indicate that it is the internal web server of the AVIATOR Wireless Handset (and not of a SwiftBroadband unit). If the handset is wireless, a battery icon shows the status of the battery. When you pass the cursor over the battery icon a text shows the status, e.g. “Battery: 67%, charging”.
- The **contents section** shows the page selected in the navigation pane. This section is used for viewing or changing settings, or for performing actions.

Using the web server

The Home page

The web server starts up on the Home page. To go back to the Home page from another location in the web server, select **Home** from the left navigation pane.

The Home page shows properties and network settings of the handset. The page is automatically updated every 5 seconds.

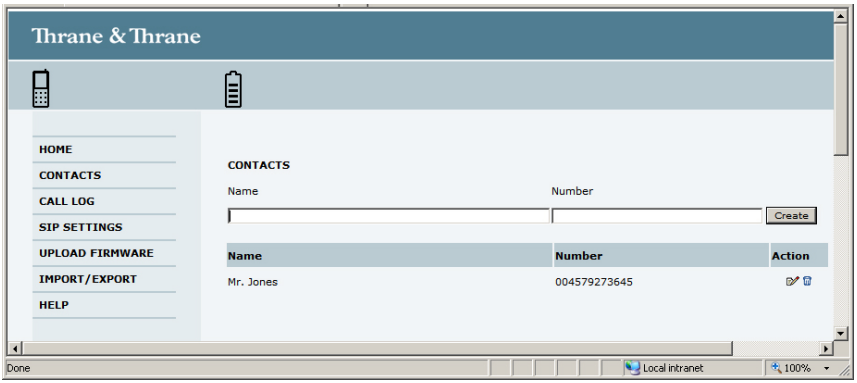


Contacts

The web server gives access to the Contacts list of the handset.

Select **CONTACTS** from the left navigation pane. The page shows the name and number of all contacts in the handset.

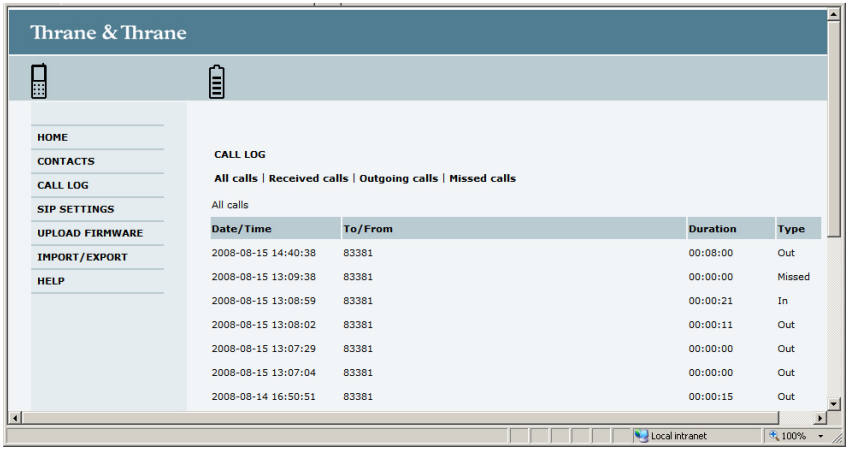
You can sort the list by name or number by clicking **Name** or **Number** in the heading row of the list.



- To add a new contact, type in the name and number at the top of the page and click **Create**. The Contacts list can hold 100 entries.
- To delete a contact, click next to the contact you want to delete.
- To edit a contact, click next to the contact you want to edit, and make your corrections.

Call log

To display the call log of the handset, select **CALL LOG** from the left navigation pane.



For each call the **CALL LOG** page shows date and time, phone number, duration and whether the call was incoming, outgoing or missed. If the phone number is in the Contacts list, the name of the contact is shown with the number. The latest calls are listed first.

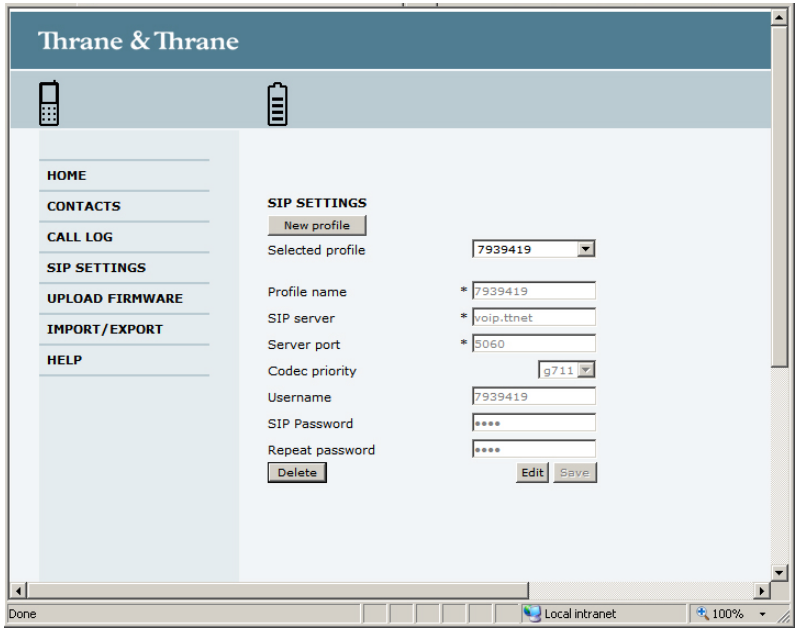
If you only want to see a subset of the calls, select one of the sub-groups at the top of the page. You can select **Received calls**, **Outgoing calls** or **Missed calls**.

SIP settings

Overview

The handset communicates using SIP (Session Initiation Protocol).

To view the SIP settings of the handset, select **SIP SETTINGS** from the left navigation pane. The page shows the settings for the current SIP profile.



To add a new SIP profile

The list of SIP profiles can hold maximum 10 profiles. To add a new profile, do as follows:

1. Click **New profile** at the top of the page.
2. Fill in the list.
   You may not need to fill in all items in the list. Mandatory fields are marked with *.
3. Click **Save** at the bottom of the page.

To edit a SIP profile

To edit a SIP profile, do as follows:

1. From the **Profile** scroll list select the profile you want to edit.
2. Change the settings according to your needs.

   Note For the SBB profile, you can only change the user name and password. Be careful if you change these - the user name is also the local phone number.

3. Click **Save** at the bottom of the page.

To delete a SIP profile

To delete a SIP profile, do as follows:

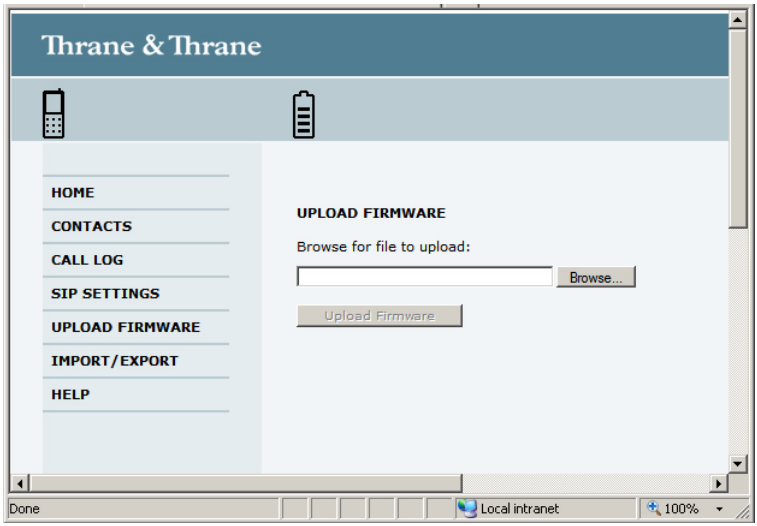
1. From the **Profile** scroll list select the profile you want to delete.
2. Click **Delete** at the bottom of the page.

Uploading firmware

You can use the web server to upload firmware from your computer to the AVIATOR Wireless Handset.

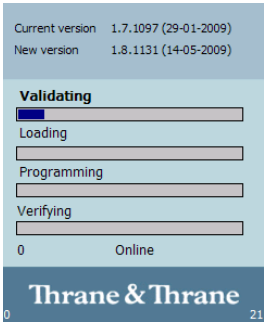
To upload firmware, do as follows:

1. Select **UPLOAD FIRMWARE** from the left navigation pane.



2. Click **Browse** and locate the firmware you want to upload to the AVIATOR Wireless Handset.

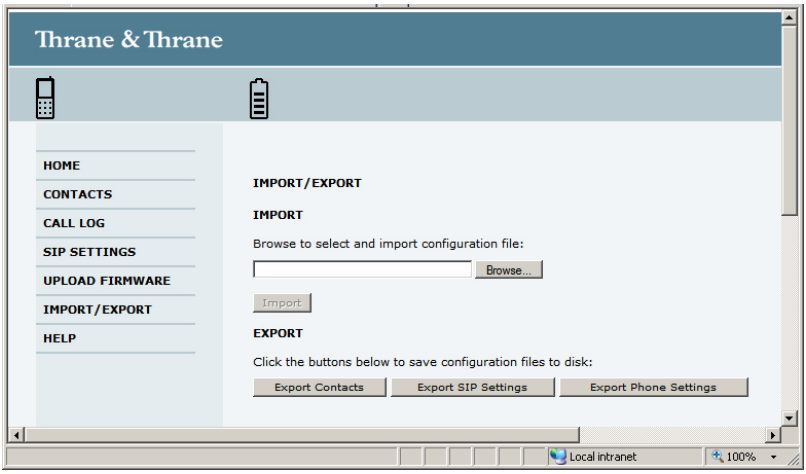
3. Click **Upload firmware**.
   The handset initiates firmware upload, showing the progress in the display. When upload is done, the handset automatically restarts with the new firmware.



Note After uploading firmware to the handset, you may have to refresh your Internet browser for the web server to display correctly. To refresh the browser, press <F5>.

Import and Export settings

If you want to copy settings from one handset to another you can use the Import/Export function. You can import settings to your handset from a file, or export settings from the handset to a file. Select **IMPORT/EXPORT** from the left navigation pane.



To export settings to a file

You may export three types of settings file, each containing a subset of the handset settings: Contacts, SIP settings or Phone settings. The name of the file indicates which settings are included in the file.

To export a subset of the settings to a file, do as follows:

1. In the **IMPORT/EXPORT** page, click a button under **EXPORT** to create a settings file.
2. Click **Save**, browse to the location where you want the settings file, and click **Save** again.

The file is now saved in the location you specified.

To import settings from a file

You can import three types of settings file, each containing a subset of the handset settings: Contacts, SIP settings or Phone settings. The name of the file indicates which settings are included in the file.

To import a settings file, do as follows:

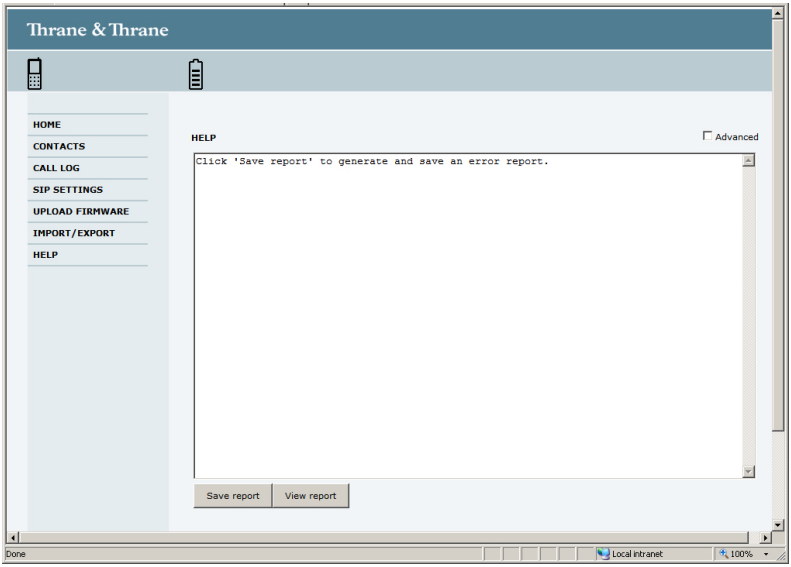
1. Click **Browse**.
2. Browse to the location where the settings file is saved and select the file you want to import.
3. Click **Open**.
4. Click **Import**.

The selected settings are now replaced by the imported settings.

Help and diagnostics report

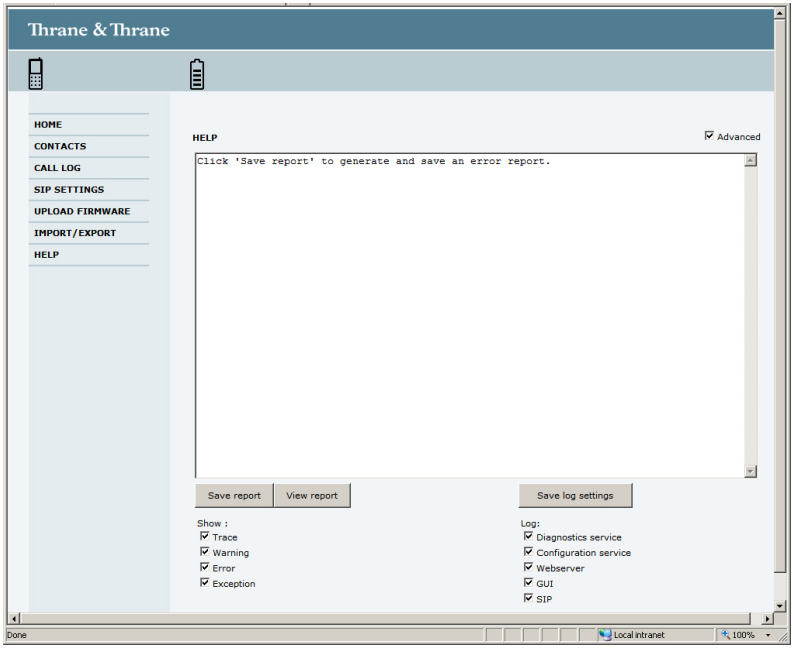
The AVIATOR Wireless Handset can generate a diagnostics report. This report includes information that can be very useful for a service technician. If you are reporting an error with your AVIATOR Wireless Handset, you may be asked to provide a diagnostics report. To save a diagnostics report, do as follows:

1. Select **HELP** from the left navigation pane.



2. Click **Save report**.

3. If your service technician needs specific information included in the report, click **Advanced** and select the items needed. Then click **Save report**.



Service & maintenance

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

Getting 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 AVIATOR Wireless Handset, please contact your Airtime Provider

If you need assistance with problems caused by the AVIATOR Wireless 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 *Help and diagnostics report* on page 89.

Maintenance tasks

Carefully read and follow the instructions on maintenance of the AVIATOR Wireless Handset. Failure to carefully observe the following procedures and precautions can result in leakage of battery fluid, permanently damage batteries and serious personal injury!

Software update

For instructions how to make a software update see *Uploading firmware* on page 86.

Battery handling for the wireless AVIATOR Wireless Handset

- Do not dismantle, open or shred the AVIATOR Wireless Handset. It should be dismantled only by trained personnel.
- Do not expose the AVIATOR Wireless Handset or batteries to heat or fire. Avoid storage in direct sunlight.
- Do not subject the AVIATOR Wireless Handset or batteries to mechanical shock.

Note If the AVIATOR Wireless Handset is out of use for a longer period of time, recharge the battery every two years to avoid deterioration of the battery.

Leaking battery

In the event of an AVIATOR Wireless Handset leaking liquid, do not allow the liquid to come into contact with the skin or eyes. If contact has been made, wash the affected area with copious amounts of water and seek medical advice.

Cleaning the AVIATOR Wireless Handset

Wipe the AVIATOR Wireless Handset or cradle with a clean dry cloth if they become dirty. Make sure that the charging contacts of the handset and cradle are clean.

Disposal of the AVIATOR Wireless 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.

Important Take out the battery before disposing of the AVIATOR Wireless Handset. The battery must be disposed of separately.

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 is not responding to any keys pressed.	An error occurred in the software.	Press and hold the on hook key for at least 10 seconds to switch off the handset. Then switch on the handset again.
No connection to the SBB network.	1) The PIN code has not been entered in the SwiftBroadband unit, 2) There is an error in the terminal or the SBB network.	1) Enter the menu system of the handset and select **SBB > Enter PIN code**. For information on how to enter the PIN, see *Establishing a connection* on page 9. 2)See the manuals for the SwiftBroadband unit 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 **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 65.

A

AES	Advanced Encryption Standard

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

IMSO	International Maritime Satellite Organisation. An intergovernmental body established to ensure that Inmarsat continues to meet its public service obligations.

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.
PSK	Pre-Shared Key

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.

Q

QVGA	Quarter Video Graphics Array. A popular term for a computer display with 320 × 240 resolution. QVGA displays are often seen in mobile phones, PDAs and some handheld game consoles.

R

RTP	Real-time Transport Protocol, defines a standardized packet format for delivering audio and video over the Internet.

S

SA	Stronger Authentication
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.

T

TFT	Thin Film Transistor. A display type using a number of individual display cells, each controlled by its own transistor.

TKIP	Temporal Key Integrity Protocol

U

URL	Uniform Resource Locator. A name used to describe the address of a specific resource on the internet.
USB	Universal Serial Bus. A serial bus standard to interface devices.

V

VoIP	Voice over Internet Protocol. The routing of voice conversations over the Internet or through an IP-based network.

W

WEP	Wired Equivalent Privacy, a security protocol for wireless networks that encrypts transmitted data.
WLAN	Wireless Local Area Network
WPA	Wi-Fi Protected Access, wireless security with greater protection than WEP.

Z

ZRTP	ZRTP is a cryptographic key-agreement protocol to negotiate the keys to encrypt VoIP phone calls. ZRTP describes a method of Diffie-Hellman key agreement for Secure Real-time Transport Protocol (SRTP).

Numerics

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