



LandPhone

User guide



Welcome

LandPhone is Inmarsat's fixed satellite phone service, for use in remote locations where local networks are unreliable or non-existent.

LandPhone is:

- Easy to set-up and use.
- A robust solution for outdoors.
- Ideal for multi-user communities.
- For use in Asia, Africa and the Middle East.

This user guide explains in detail how to set up, connect and use your phone.

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Before you start

Package contents

When you purchased the Inmarsat LandPhone, you should have received the following:

- Antenna.
- Antenna mounting plate assembly.
- Antenna cable.
- Terminal.
- AC Power adapter and cable.

➔ Additional requirements:

In addition to the package contents listed above, you will need the following (not supplied):

- A pipe or pole between 0.75 inches and 1.25 inches (19mm and 32mm) in diameter. The pipe or pole should be made of steel or other material suitable for local weather conditions.
- An AC/DC power supply.
- A good quality telephone handset. For a list of handsets suggested for use with the LandPhone, contact your service provider.

Subscription and SIM card

Before you can use your terminal, you must obtain a subscription from an authorised service provider. You will be provided with a SIM Card with your subscription.

Important:

- Please check the supplementary services and subscription features available to you with your service provider.
- To ensure that the supplementary services function as expected, please enter the commands specified in this user guide.

About this guide

The following conventions are used in this guide:

- Letters in **Bold** indicate a menu, function or key.
- The slash character (/) is used to separate menus from sub-menus. For example, **Networks/New search** indicates that you should

select the **Networks** menu option and then **New search** in the sub-menu.

- Text within brackets () indicates the current setting for the function displayed; < and > indicate that you can scroll through more options.
- The term 'select' implies moving to the specified item in the menu or sub-menu, and pressing the YES key.

Further details and support

If you experience problems whilst using your LandPhone, contact your service provider for customer support.

In an emergency, the Inmarsat Customer Services Technical Helpdesk is available to assist. To contact Inmarsat customer services:

Tel: +44 (0)20 7728 1300

E-mail: customer_care@inmarsat.com

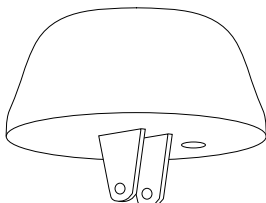
Fax: +44 (0)20 7728 1142

Introducing your LandPhone

The LandPhone is a fixed satellite phone for use in remote locations where local networks are unreliable or do not exist. You can use it by connecting a standard telephone handset (not supplied) to the LandPhone terminal.

Antenna

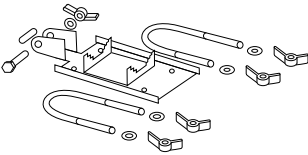
The antenna sends and receives signals to and from the satellite. It must be installed outside and positioned to avoid obstructions from buildings and trees. Make sure the antenna is pointing towards the satellite to obtain the maximum possible signal strength.



Antenna mounting plate assembly

The antenna is supplied with a customised mounting plate assembly that enables you to attach the antenna to a pole or similar construction. The antenna mounting plate assembly allows adjustment of the antenna elevation angle and direction during pointing.

Note: Before you can mount the antenna, you need to obtain a pipe or pole between 0.75 inches and 1.25 inches (19mm and 32mm) in diameter. The pole should be made of steel or other material suitable for local weather conditions.

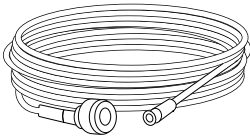


➔ Package contents:

- 1 Mounting plate
- 2 U-bolts
- 4 Small wing nuts
- 1 Large wing nut
- 1 Long bolt
- 6 Flat washers
- 1 Spring washer
- 1 Spacer
- 1 Tightening tool

Antenna cable

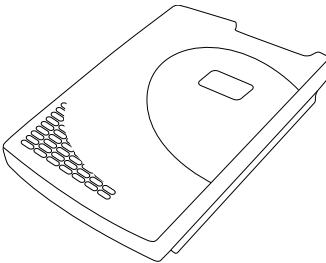
The antenna cable connects the antenna to the terminal. The standard length of the cable is 34.5ft (10.5m). If the distance between the antenna and the terminal is less than this, do not cut the cable, as it is designed to match the signal transmitting and receiving capability of both the antenna and the terminal. Also, a shortened cable could affect voice quality. If you require a cable of a different length, please contact your service provider to check on availability.



Note: Only use a cable of the type and length recommended to maintain the signal receiving capability of the terminal. See cable specifications on page 72.

Terminal

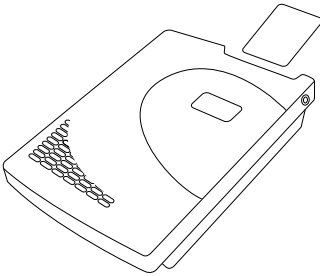
The terminal processes the signal between the satellite and an attached handset, and converts it into a voice call. You can also connect a computer to the terminal, and make fax or data calls.



It consists of the following components:

➔ SIM card reader

The SIM card reader, located at the rear of the terminal, is where you insert your credit card-sized SIM card.



The reader captures your identification number and other information about your subscription from the SIM card. The terminal can then register you with the network.

Note: The LandPhone uses a credit-card sized SIM card. Do not punch out the smaller, postage stamp-sized SIM card.

➔ LCD display

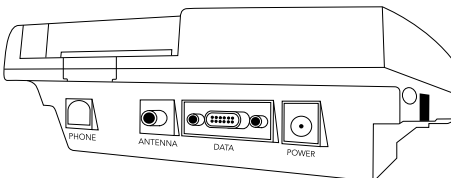
The LCD display shows the terminal's status and condition, and provides you with information such as:

- SIM card status.
- Network registration status.
- Signal strength.
- Call connection details.
- Supplementary services details.

➔ Connectors

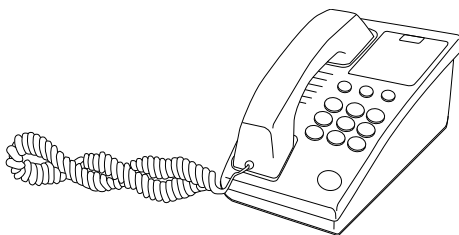
There are a number of connectors at the rear of the terminal allowing you to connect:

- A telephone handset ('Phone' connector).
- The antenna ('Antenna' connector).
- A computer, using a DB9 connector ('Data' connector).
- The power adapter ('Power' connector).



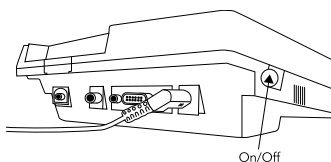
Note: A telephone handset is not supplied with the LandPhone. Any generally available telephone handset can be used with the LandPhone; however, you can improve voice quality and minimise voice echo by using a good quality handset.

Note: For an up to date list of handsets suggested for use with your LandPhone, contact your service provider.



➔ Power switch

The power switch is located on the side of the terminal, near to the connectors. This turns the terminal on and off. Press the power button for approximately 4 seconds to turn the terminal on or off.



This switch is an electronic switch, therefore it will only function if there is power supplied to the unit.

When the unit is turned off, but the power adapter is still plugged in, the unit continues to consume minimum power. If you want to turn the LandPhone completely off, unplug the power adapter.

Power adapter

The power adapter converts the main alternative current (AC) electricity supply to direct current (DC). The adapter can be used with 110V or 220V power supply. The output from the adapter to the terminal is 12V. The adapter is designed for continuous operation. It is normal for the adapter to feel warm.

Note: The LandPhone does not run on batteries, although an external battery can be used. Contact your service provider for details.

Installing your LandPhone

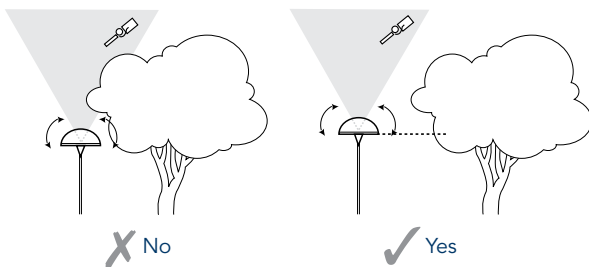
This section describes how to install your Inmarsat LandPhone. Follow the instructions below to ensure optimum performance.

Deciding on a location for the antenna

Before you assemble and install the antenna, you must first decide on a suitable location, and on where to point it to obtain maximum signal strength from the satellite.

➔ Position the antenna to avoid obstructions

When choosing the location of your antenna, make sure that there are no obstructions such as trees, buildings or other structures in the line of sight between the antenna and the satellite. Obstructions can block the signal being transmitted to and from the satellite.



Installing the antenna

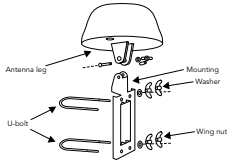
You need a pipe or pole of between 0.75 inches and 1.25 inches (19mm and 32mm) in diameter. The pole must be made of steel or material suitable for local weather conditions. Attach the pole to a solid structure, such as a concrete base or at the ground by using metal clamps.

Safety information: To avoid the possibility of lightning strike, ensure that the top of the antenna is set at a lower height than the highest building or tree within the immediate area.

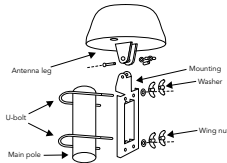
➔ Fixing the antenna and mounting plate to the pole

To fix the antenna to the mounting plate:

1. Connect the antenna mounting to the antenna leg using the long bolt assembly (long bolt, large wing nut, two washers, spring washer and spacer).



2. Tighten the nut just enough to hold the antenna in place, but make sure that you can alter the angle of the antenna, if required.
3. Position the U-bolts round the mounting pole, as indicated below:



4. Attach the U-bolts to the antenna mounting using the wing nuts and washers.
5. Tighten the four wing nuts so that mounting plate is attached to the pole securely and cannot be moved. (You can loosen the wing nuts later to make fine adjustments to the antenna position).

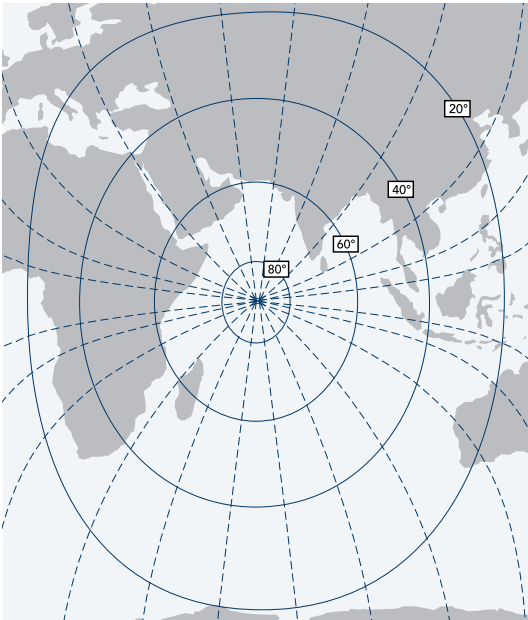
Pointing the antenna

Inmarsat recommends that you manually point the antenna in the direction of the satellite. To do this, identify your location on the coverage map at the back of this guide, and note your position relative to the I-4 satellite (the satellite is located in the centre of the coverage area, as indicated on the coverage map). You can then adjust the elevation and azimuth of the antenna, as described below.

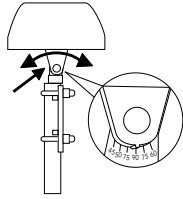
➔ Adjusting the elevation

The elevation is the vertical angle of the antenna relative to the horizon. To adjust the elevation:

1. Identify your location in relation to the I-4 satellite using the map below:



2. Estimate the required elevation angle for your location; some degree elevations are shown for guidance. For example, any point on the circle marked 20° requires that you point the antenna at a 20° elevation angle.
3. Loosen the wing nut indicated in the diagram below, and move the antenna to the estimated elevation angle. Use the markings on the mounting for guidance.



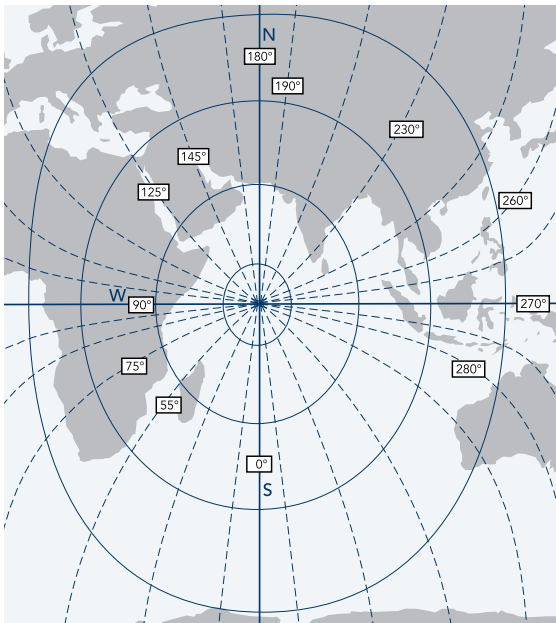
4. Re-tighten the wing nut once you have positioned the antenna.

➔ Adjusting the azimuth

The azimuth is the horizontal angle of the antenna measured clockwise relative to North.

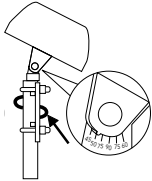
To adjust the azimuth:

1. Identify your location in relation to the I-4 satellite using the map below:



2. Estimate the required azimuth direction for your location; some example directions are shown for guidance. For example, any point on the line marked 230° requires that you point the antenna at an azimuth of 230°.

- Loosen the wing nuts holding the U-bolts to the pole, as indicated in the diagram below, and move the antenna to the estimated azimuth. Use a compass to assist you in pointing the antenna.

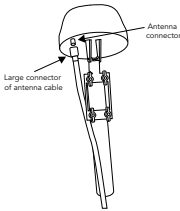


- Re-tighten the wing nuts once you have positioned the antenna.

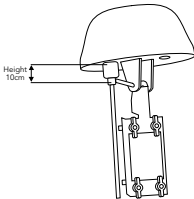
➔ Connecting the antenna cable

To connect the cable to the antenna:

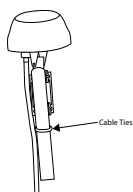
- Connect the large connector on the antenna cable to the antenna, and hand tighten.



- Stick the rubber tape supplied to the top of the connector. Stretch it and wind it clockwise down the connector. Each turn should half overlap the previous turn. After you have wound the tape down approximately 3.5 inches (10cm), reverse the direction and wind the tape back towards the top of the connector. Continue until all the tape is used up.



3. Allow the cable to arch away from the pole (as shown below) to enable adjustment of the antenna elevation.



4. Use the cable ties supplied to tie the cable to the pole below the mounting plate. Position the ties at even intervals so that the cable is secured down its full length.
5. Lay the remaining cable from the antenna to the terminal.

Notes:

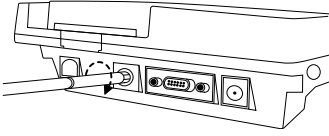
- Do not damage the cable.
- Use standard cable clamps to affix the cable to wall, plank, etc.

Setting up the terminal

Note the following when you install the terminal:

- The terminal must be located inside.
- The terminal must be located in a dry, dust-free place.
- The terminal must not be exposed to extremes of temperature, and must be kept away from direct sunlight.
- The terminal must be located near a power outlet.
- The terminal must not be exposed to excessive vibration.
- The terminal must be located in a place where it can connect to the antenna cable.
- The terminal's SIM card slot must be accessible, in case you want to replace your SIM card.
- The terminal must not be located too close to any radio communications equipment, such as CB and SSB, which could interfere with the signal.

➔ Connecting the antenna cable to the terminal



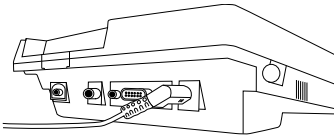
To connect the antenna cable to the terminal:

1. Connect the SMA-type connector on the antenna cable to the connector marked 'Antenna' on the terminal.
2. Turn the connector clockwise and tighten by hand. Do not use a wrench or overturn the connector as this may damage the terminal.

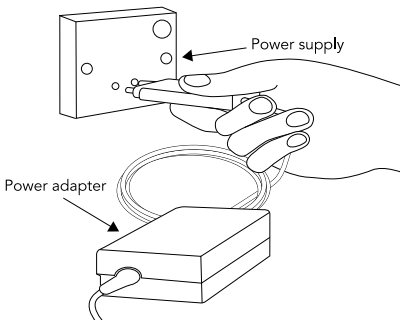
➔ Connecting the power adapter

To connect the terminal to the power supply:

1. Connect the power adapter cable connector to the terminal connector marked 'Power'.



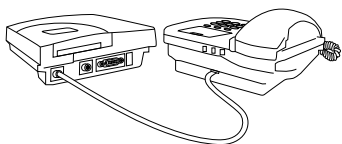
2. Connect the power adapter to the power supply.



Safety information:

- Ensure that the power source is compatible with the power adapter, i.e. either 110V or 220V.
- Only use the power adapter provided in the package.

Connecting a telephone handset



To connect a telephone handset (not supplied) to the terminal:

1. Place the telephone handset in the desired location. If required, use a longer telephone cable to locate the telephone handset away from the terminal.
2. Connect the telephone cable connector to the terminal connector marked 'Phone'.

Note: You cannot use a conventional fax machine with the LandPhone. You can only use appropriate fax software. Refer to 'Setting up a fax or data connection' on page 49 for details.

Connecting to the network

After you have installed and connected your LandPhone, you must insert (and, if necessary, activate) the SIM card and register with the I-4 satellite.

Switching on the terminal

To switch on the terminal:

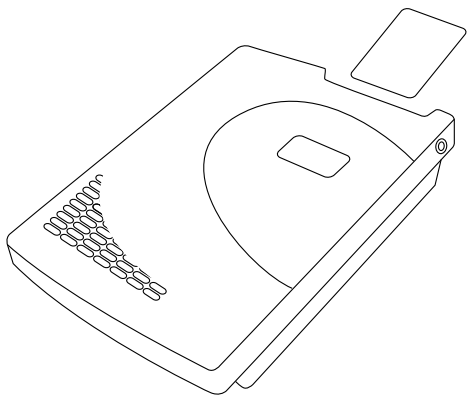
Insert SIM

1. Ensure that the power adapter is connected to the power outlet.
2. Turn on the terminal by pressing and holding the on/off switch (located on the side of terminal) for approximately 4 seconds, or until the LCD is activated.
3. The LCD displays **Insert SIM**.

Inserting the SIM card

To insert the SIM card:

1. Insert your SIM card into the SIM card reader with the chip facing downward.



Please wait

- If the SIM card is inserted correctly, the LCD displays **Please wait**.

Check card

- If the SIM card is inserted incorrectly, the LCD displays **Please wait** followed by **Check card**. Remove and re-insert the SIM card.

2. If the SIM PIN is enabled, the LCD will display **Enter SIM PIN**. Enter the 4-digit PIN supplied by your service provider.

Note: The Inmarsat default PIN is **8888**.

**Enter
SIM PIN:**

The LCD will display as **** for security purposes. If the PIN is entered correctly, **Searching** is displayed. Otherwise, **Enter SIM PIN** is redisplayed.

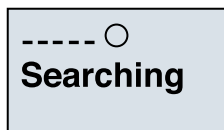
➔ **Activating the SIM card**

If your SIM Card requires activation, simply follow the instructions provided by your authorised Inmarsat service provider.

Note: If you enter the PIN incorrectly 3 times, the SIM card locks. Refer to "Changing or unlocking the PIN" on page 47, for instructions on unlocking the PIN.

Registering with the network

After you have turned the terminal on and entered a SIM card, the terminal automatically searches for the network:



1. The LCD displays **Please wait** followed by **Searching**.



2. After successful registration, the LCD displays **SAT**, the full circle symbol and signal bars showing the signal strength. A minimum of two signal strength bars is required to make and receive calls.



3. Lift the telephone handset. You should hear a dial tone, and the LCD displays **Please dial**. (Refer to 'Types of tone' on page 62 for details of available tones).

Note: You may need to make minor adjustments to the antenna's azimuth and elevation to obtain the maximum possible signal strength. To do this, loosen the bolts holding the antenna in place, make the necessary adjustment, and retighten the bolts.

➔ Further guidance

If the satellite search does not complete automatically, the LCD displays **Enter Channel?** In this case, you can register the terminal manually.

To register manually:

1. Refer to the I-4 coverage map supplied at the back of this guide, and select the channel number closest to your location.
2. Lift the telephone receiver. The LCD displays **Channel 0**:
3. Key in the two digit channel number, followed by **#**. The LCD displays **OK**.
4. Replace the telephone receiver. This LCD displays **Searching**, followed by **SAT** and the full circle symbol.

Note: Registration normally takes a short time, but may take several minutes in some cases.

Entering and changing channel numbers

This section explains how to enter and change a channel number on the LandPhone.

➔ Entering the channel number

Inmarsat recommends that you manually enter the channel number for your location into the LandPhone, even if the LandPhone registers automatically with the satellite. This ensures the future reliability of the registration process.

Note: You do not need to do this if you entered the channel number manually, as described in 'Further guidance' on page 22.

To manually enter the channel number:

1. Refer to the I-4 coverage map supplied in this guide, and select the channel number closest to your location.
2. Lift the telephone receiver, and key in **#62***. The LCD displays **Channel 0**:
3. Key in the two digit channel number, followed by **#**. The LCD displays **Channel 1**:
4. Replace the telephone receiver.

The LandPhone stores the channel number you enter, and uses it whenever it registers with the satellite.

You will only need to re-enter the channel number in any of the following scenarios:

- You enter more than one channel number by mistake.
- You move your LandPhone to a location outside the coverage area of the current channel number.
- Inmarsat or your service provider notifies you that the channel numbers have changed.

In all these scenarios, refer to “Changing the channel number”, below.

➔ Changing the channel number

To change the currently stored channel number(s):

1. Turn on the LandPhone, and wait until **Searching** displays.
2. Lift the telephone handset, and key in **#63***. The LCD displays **OK**, to indicate that the currently stored channel numbers have been deleted.
3. Replace the telephone handset.
4. Register with the satellite, as described in “Registering with the network”. You may need to manually enter a channel number at this stage, if automatic registration does not occur.
5. If you did not manually enter a channel number at step 4, manually enter the required channel number as described in “Entering the channel number”, on page 23.

Making and receiving calls

The instructions in this chapter assume that you have performed the setup procedures described in the previous sections, and that you are within range of the network.

Making a call

Before you can make a call, the full circle symbol and the word **SAT** must be displayed on the LCD. To make a call:



1. Lift the telephone handset and wait for a dial tone. **Please dial** displays on the LCD.



2. You must always use the international format when making a call on the LandPhone:

00<Country code><Area code minus leading zero><Phone number>

The dialled number displays on the LCD for approximately 10 seconds, then **Calling** and **Connecting** displays.



IMPORTANT: You will hear a progress tone when the LCD displays **Calling** but this tone ends when the LCD displays **Connecting**.

If the connection is successful, you hear a ring back tone or a busy tone (refer to 'Types of tones' for details of available tones).



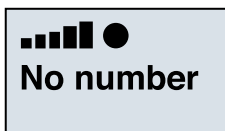
When the called person answers the call, **Connecting** is replaced by **Call in progress** and a call timer (00.00) displays in the upper right corner of the LCD

If the called person is busy, the LCD displays **Call failure** and you hear a busy tone.



3. When you finish the conversation, replace the telephone handset on the cradle to end the call, and return to the main screen. The LCD displays **SAT**.

If the telephone is off the hook for approximately 10 seconds and no digit is dialed, **Please dial** is replaced by **No number** and you hear a rapid tone. Replace the receiver in its cradle.



➔ Changing the volume

You can increase or decrease the volume of the LandPhone using the terminal commands given below. However, Inmarsat recommends that if your telephone handset has its own volume control, you use this to change the volume settings before or during a call. This minimises the possibility of voice echo. If you do need to increase or decrease the volume setting on the LandPhone do the following:

- Press **#53*#** on your telephone keypad to increase the volume
- Press **#53**** on your telephone keypad to decrease the volume.

The volume can be set to 0, 1, 2, 3 or 4, with 0 as the minimum setting and 4 as the maximum setting.

At time of publication, the default setting is 1.

Receiving a call

When you receive an incoming call, the handset rings and the LCD displays **Incoming call**.



If the Caller line identification (CLI) service is active, the calling party number will be displayed on the LCD.



1. Lift the telephone handset to answer the call. **Incoming call** is replaced by **Call in progress** and a call timer (00:00) displays in the top right corner of the LCD.



2. When the call is finished, replace the telephone handset. The LCD displays **SAT**.

Note: Please refer to 'Caller line identification' on page 28 for instructions on how to activate CLI.

Supplementary services

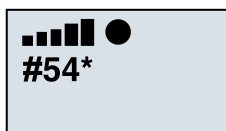
Your phone has many features that can help you to make and receive calls. The features available to you depend on your type of subscription, and on whether you have a prepay or post-pay agreement.

Caller line identification (CLI)

This service allows you to see the telephone number of your caller.

➔ Activating CLI

To activate CLI:



1. Lift the telephone handset and press #54* on the telephone keypad.

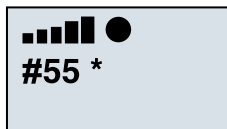
#54* displays on the LCD, followed by OK. You hear a rapid busy tone, meaning that CLI has been successfully activated.



2. Hang up to return to the main screen.

➔ Deactivating CLI

To deactivate CLI:



1. Lift the telephone handset and press **#55*** on the telephone keypad.

#55* displays on the LCD, followed by **OK**. You hear a rapid busy tone meaning that CLI has been successfully deactivated.



2. Hang up to return to the main screen.

Call holding

This service allows you to put an active call on hold. To do this:



1. While on an active call, press the flash/recall button (or equivalent) on the phone. The letter **H** displays in the upper right corner of the LCD, and the caller is put on hold.



2. Press the flash/recall button (or equivalent) again to retrieve the held call. The **H** is replaced by the call counter.

Call waiting

This service allows you to answer a second call while on an active call.

➔ Activating call waiting

To activate call waiting:



1. Press ***43##** on the telephone keypad.



***43##** is displayed followed by
Please wait.



After approximately 10 seconds, **OK** and **W** display on the LCD, and you hear a rapid busy tone. This indicates that call waiting has been successfully activated.



2. Hang up to return to the main screen.

➔ Answering a second call

To answer a second call when you are on an active call, do the following:



1. Whilst on an active call, you will hear the call waiting tone alerting you that an incoming call is waiting. The LCD displays **Incoming call** and the **W** symbol.



2. Press the flash/recall button (or equivalent) to hold the current call and answer the second call. **H** displays adjacent to **W** indicating that a call is being held.



3. Press the flash/recall button (or equivalent) again to disconnect the second call and come back to the first call. H disappears while W remains.

➔ Deactivating call waiting

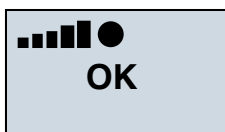
To deactivate call waiting:



1. Press **#43##** on the telephone keypad.



#43## is displayed followed by Please wait.



After approximately 10 seconds, OK displays, W disappears and you hear a rapid busy tone. That means call waiting has been successfully deactivated.



2. Hang up to return to the main screen.

➔ Checking call waiting status

To check on the status of call waiting:



1. Press ***#43##** on the telephone keypad.



#43## is displayed followed by
Please wait.



After approximately 10 seconds, either
Waiting on or Waiting off is displayed,
depending on whether the service has
been activated or not.



2. Hang up to return to the main screen.

Call forwarding – all calls

The call forwarding - all calls service allows you to divert all incoming calls to another telephone number.

When you enter the telephone number for call forwarding, use the international dialling format of: 00, followed by country code, area code (minus the leading zero) and phone number.

For example, to enter 44 20 7123 4567, key in "00442071234567".

➔ Activating call forwarding – all calls

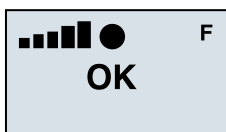
To activate call forwarding for all incoming calls:



1. Press ****21*#[Phone no.]##** on the telephone keypad (where [Phone no.] is the telephone number you want to divert the calls to).
Note: ** displays as + on the LCD.



The phone number is displayed followed by
Please wait.



After approximately 10 seconds, OK and F are displayed on the LCD. This means call forwarding – all calls has been successfully activated. Otherwise, the LCD displays Try again.



2. Hang up to return to the main screen.

➔ Deactivating call forwarding – all calls

To deactivate call forwarding for all incoming calls:



1. Dial ##21## on the telephone keypad.



##21## is displayed followed by Please wait.



After approximately 10 seconds, OK is displayed while F disappears. This means call forwarding – all calls has been successfully deactivated.



2. Hang up to return to the main screen.

➔ Checking call forwarding – all calls status

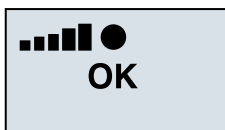
To check the current status of call forwarding – all calls:



1. Dial *#21## on the telephone keypad.



*#21## is displayed followed by
Please wait.



After approximately 10 seconds, the
LCD displays F and the forwarded phone
number if this service is activated. If the
service is deactivated, OK is displayed.



2. Hang up to return to the main screen.

Important: If the terminal is turned off (by unplugging the power adapter) with call forwarding - all calls active, your LandPhone does not automatically display F when it is turned on again. Perform the check status procedure to display F.

Call forwarding – no answer

The call forwarding – no answer service diverts calls to another telephone number if you do not answer the call within a certain time. The default time is 20 seconds.

➔ Activating call forwarding – no answer

To activate call forwarding for unanswered calls:



1. Dial ****61*[Phone no.]*3##** on the telephone keypad (where [Phone no.] is the telephone number to which you want to divert calls).



The phone number is displayed on the LCD followed by **Please wait**.



After approximately 10 seconds, OK and F are displayed meaning that call forwarding – No Answer has been successfully activated



2. Hang up to return to the main screen.

➔ Deactivating call forwarding – no answer

To deactivate call forwarding for unanswered calls:



1. Dial **##61##** in the telephone keypad.



##61## is displayed followed by Please wait.



After approximately 10 seconds, OK is displayed and F disappears. This means call forwarding – no answer has been successfully deactivated.



2. Hang up to return to the main screen.

➔ Checking call forwarding – no answer status

To check the current status of call forwarding – no answer:



1. Dial ***#61##** on the telephone keypad.



*#61## is displayed followed by
Please wait.



After approximately 10 seconds, the LCD displays F and the phone number receiving calls if this service has been activated. If the service is not activated, OK is displayed.



2. Hang up to return to the main menu.

Important: If the terminal is turned off (by unplugging the power adapter) with call forwarding – no answer active, your LandPhone does not automatically display F when it is turned on again. Perform the check status procedure to display F.

Call forwarding – not reachable

The call forwarding – not reachable service allows you to divert calls to another telephone number if your LandPhone is turned off.

➔ Activating call forwarding – not reachable

To activate call forwarding when the LandPhone is switched off or otherwise unreachable:



1. Dial ****62*[Phone no.]##** on the telephone keypad (where [Phone no.] is the telephone number you want to divert the calls to).
Note: ** displays as + on the LCD.



The phone number is displayed on the LCD followed by **Please wait**.



After approximately 10 seconds, OK and F are displayed meaning that call forwarding – not reachable has been successfully activated.



2. Hang up to return to the main screen.

➔ Deactivating call forwarding – no answer

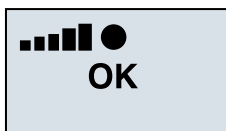
To deactivate call forwarding for unanswered calls:



1. Dial ##62## on the telephone keypad.



##62## is displayed followed by Please wait.



After approximately 10 seconds, OK is displayed and F disappears. This means call forwarding – not reachable has been successfully deactivated.



2. Hang up to return to the main screen.

➔ Checking call forwarding – not reachable status

To check the current status of call forwarding – not reachable:



1. Dial ***#62##** on the telephone keypad.



***#62##** is displayed followed by
Please wait.



After approximately 10 seconds, the LCD displays F and the phone number receiving calls, if this service has been activated. If the service is not activated, OK is displayed.



2. Hang up to return to the main menu.

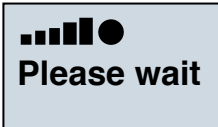
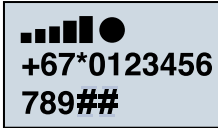
Important: If the terminal is turned off (by unplugging the power adapter) with call forwarding – not reachable active, your LandPhone does not automatically display F when it is turned on again. Perform the check status procedure to display F.

Call forwarding – busy

The call forwarding – busy service divert calls to another telephone number if your LandPhone is busy.

➔ Activating call forwarding – busy

To activate call forwarding when the LandPhone is busy:



1. Dial ****67*[Phone no.]##** on the telephone keypad (where **[Phone no.]** is the telephone number you want to divert the calls to).

Note: ** displays as + on the LCD.

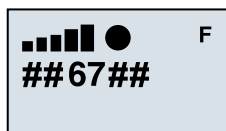
The phone number is displayed on the LCD followed by **Please wait**.

After approximately 10 seconds, **OK** and **F** are displayed meaning that call forwarding – busy has been successfully activated.

2. Hang up to return to the main screen.

➔ Deactivating call forwarding – busy

To deactivate call forwarding when busy:



1. Dial **##67##** on the telephone keypad.



##67## is displayed followed by Please wait.



After approximately 10 seconds, **OK** is displayed and **F** disappears. That means call forwarding – busy has been successfully deactivated.



2. Hang up to return to the main screen.

➔ Checking call forwarding – busy status

To check the current status of call forwarding – busy:



1. Dial ***#67##** on the telephone keypad.



***#67##** is displayed followed by Please wait.



After approximately 10 seconds, the LCD displays **F** and the phone number receiving calls, if this service has been activated. If the service is not activated, **OK** is displayed.



2. Hang up to return to the main menu.

Important: If the terminal is turned off (by unplugging the power adapter) with call forwarding – busy active, your LandPhone does not automatically display F when it is turned on again. Perform the check status procedure to display F.

Conference calling / 5-party service

The conference call service allows you to have a joint conversation with up to four other people. To set this up on your LandPhone:

1. Call the first person.
2. Press the flash/recall button (or equivalent) to put this person on hold. **H** and **Please dial** is displayed.
3. Call the second person.
4. When the second person answers the call, press the Press the flash/recall button (or equivalent) to release the held call and to let both parties join the conference call. **Call In Progress** is displayed.
5. If you want a further person to join the call, press the flash/recall button (or equivalent) again to put the conference on hold.
6. Call the next person.
7. When the next person answers the call, press the Flash button to release the held call and to let all parties join the conference call. **Call In Progress** displays on the LCD.
8. If required, repeat steps 5 to 7 to add a fourth caller to the conference. Five callers in total, including yourself, can be on a conference call at any one time.

Call barring – all outgoing calls

The call barring – all outgoing calls service prevents all outgoing calls.

→ Activating call barring – all outgoing calls

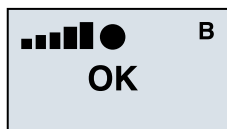
To activate call barring for all outgoing calls:



1. Dial ***33*[PIN]##** on the telephone keypad (where [PIN] is your 4-digit PIN code).



The PIN is displayed on the LCD followed by **Please wait**.



After approximately 10 seconds, **OK** and **B** are displayed meaning that call barring – all outgoing calls has been successfully activated.



2. Hang up to return to the main screen.

→ Deactivating call barring – all outgoing calls

To deactivate call barring for all outgoing calls:



1. Dial **#33*[PIN]##** in the telephone keypad (where [PIN] is your 4-digit PIN code).



The PIN number is displayed followed by **Please wait**.



After approximately 10 seconds, OK is displayed and B disappears. That means call barring – all outgoing calls has been successfully deactivated.



2. Hang up to return to the main screen.

➔ Checking call barring – all outgoing calls

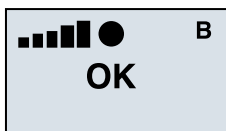
To check the current status of call barring – all outgoing calls:



1. Dial ***#33##** on the telephone keypad.



***#33##** is displayed followed by Please wait.



After approximately 10 seconds, the LCD displays B and OK, if this service has been activated. If the service is not activated, OK is displayed.



2. Hang up to return to the main menu.

Important: If the terminal is turned off (by unplugging the power adapter) with call barring – all outgoing calls active, your LandPhone does not automatically display **B** when it is turned on again. Perform the check status to display **B**.

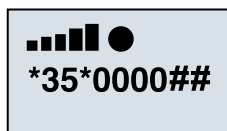
Note: If you enter the wrong PIN, the LCD displays **Try again**.

Call barring – all incoming calls

The call barring – all incoming calls service blocks all incoming calls.

➔ Activating call barring – all incoming calls

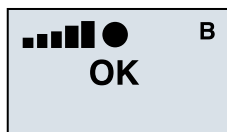
To activate call barring for all incoming calls:



1. Dial ***35*[PIN]##** on the telephone keypad (where **[PIN]** is your 4-digit PIN code).



The PIN is displayed on the LCD followed by **Please wait**.



After approximately 10 seconds, **OK** and **B** are displayed meaning that call barring – all incoming calls has been successfully activated.



2. Hang up to return to the main screen.

➔ Deactivating call barring – all incoming calls

To deactivate call barring for all incoming calls:



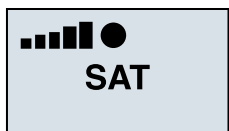
1. Dial **#35*[PIN]##** on the telephone keypad (where [PIN] is your 4-digit PIN code).



The PIN number is displayed followed by **Please wait**.



After approximately 10 seconds, **OK** is displayed and **B** disappears. That means call barring – all incoming calls has been successfully deactivated.



2. Hang up to return to the main screen.

➔ Checking call barring – all incoming calls status

To check the current status of call barring – all incoming calls:



1. Dial ***#35##** on the telephone keypad.



***#35##** is displayed followed by **Please wait**.



After approximately 10 seconds, the LCD displays **B** and **OK**, if this service has been activated. If the service is not activated, **OK** is displayed.



2. Hang up to return to the main menu.

Important: If the terminal is turned off (by unplugging the power adapter) with call barring – all outgoing calls active, your LandPhone does not automatically display **B** when it is turned on again. Perform the check status procedure to display **B**.

Note: If you enter the wrong PIN, the LCD displays **Try again**.

Canceling all call barring

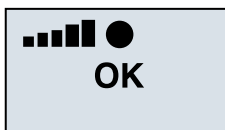
To cancel all call barring:



1. Dial ***330*[PIN]##** on the telephone keypad (where **[PIN]** is your 4-digit PIN code).



#330*0000## is displayed followed by **Please wait**.



After approximately 10 seconds, **OK** is displayed and **B** disappears. That means All Call Barring has been deactivated.



2. Hang up to return to the main screen.

Voicemail

Voicemail may be active by the end of 2007. Contact your service provider for details.

Changing or unlocking the PIN

This section explains how to change the PIN code, and how to unlock the LandPhone if you incorrectly enter the PIN code three times.

➔ Changing the PIN code

You must be registered with the satellite before you change the PIN code. To change the PIN code:



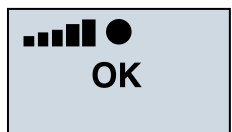
1. Lift the telephone handset, and key in **#61***. The LCD displays **Enter old PIN**.



2. Using the telephone keypad, enter the existing four-digit PIN code followed by **#**. The LCD displays **Enter new PIN**.



3. Using the telephone keypad, enter the new four-digit PIN code followed by **#**. The LCD displays **Repeat new PIN**. Using the telephone keypad, enter the new four-digit PIN code again followed by **#**.



4. Wait 5 seconds. When the LCD displays **OK**, the PIN has been successfully changed.
5. Replace the handset.

➔ Unlocking the PIN

If you enter the SIM PIN incorrectly three times, the LandPhone locks and the LCD displays **Enter SIM PUK**.



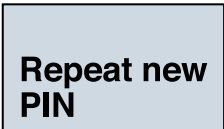
**Enter SIM
PUK**

You must use the PUK code supplied by your service provider to unlock the LandPhone. You can then re-set the PIN. To do this



**Enter new
PIN**

1. Lift the telephone handset, and key in PUK code.
2. Replace the telephone handset. The LCD displays **Enter new PIN**.



**Repeat new
PIN**

3. Lift the telephone handset again, and enter the four-digit PIN you want to use. This can be the same as the existing PIN, or a PIN of your choice.
4. Replace the telephone handset. The LCD displays **Repeat new PIN**.

5. Lift the telephone handset again, and enter the four-digit PIN again.
6. Replace the telephone handset. The LCD displays **Searching**. This indicates that you have successfully unlocked your LandPhone.

Enabling or disabling the PIN code feature

If required, you can enable or disable the PIN code feature. Disabling the feature means that you are not asked to enter a PIN when you switch on the LandPhone. To enable or disable the PIN code feature:



**Enter
PIN**

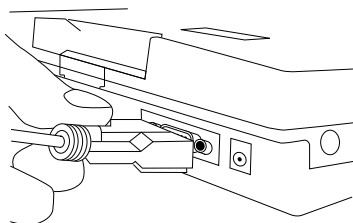
1. Lift the telephone handset, and key in **#60***. The LCD displays **Enter PIN**.
2. Using the telephone keypad, enter the four-digit PIN code followed by **#**.
3. Replace the handset.
4. Wait several seconds. The LCD displays **OK**. The status of the PIN code feature has changed (if it was previously enabled it is now disabled, for example).

Setting up a fax or data connection

This section describes how to set up a fax or data connection on the LandPhone.

Note: You cannot use a conventional fax machine with the LandPhone. You can only use appropriate fax software. For a list of recommended fax software solutions, contact your service provider.

Hardware setup



Connect the LandPhone's 'Data' port to your computer using either:

- A serial-to-serial cable (RS232), with a male DB9 connector, or
- A USB-to-serial cable, with a male DB9 connector.

The cable you require depends on the connector on your computer.

Note: The LandPhone is not supplied with a data cable.

Software setup

This procedure applies for both incoming and outgoing fax or data calls using a Windows XP computer. For other operating systems, refer to 'Preparing for a data call using dial-up networking' on page 56.

To set up the LandPhone for a fax or data call:

1. In Microsoft Windows XP, select **Start > Control Panel**. The Control Panel window displays.

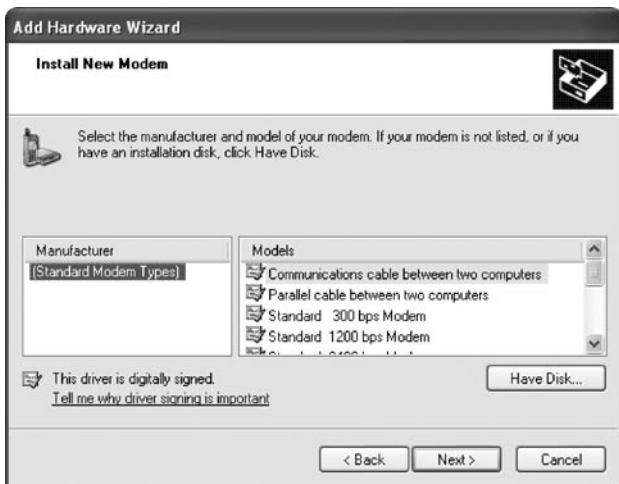
2. Double click on **Phone and Modem Options**, then click on the **Modems** tab to display the following screen:



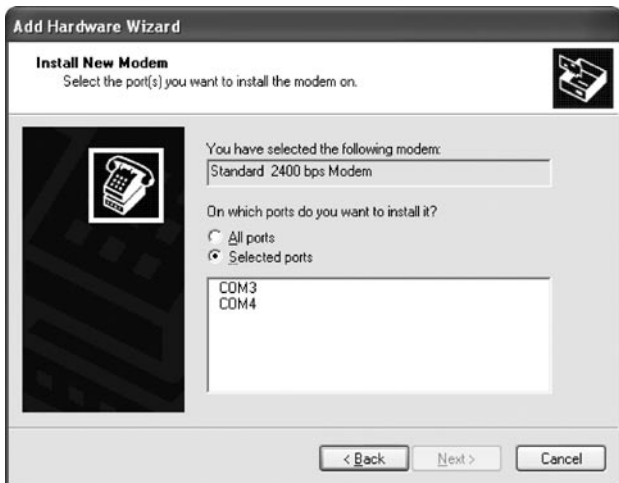
3. Click on **Add...** The following window displays:



4. Check the **Don't detect my modem; I will select it from a list** option, and click on **Next**. The following window displays:



5. Select **(Standard Modem Types)** from Manufacturer, and **Standard 2400 bps Modem** from Models. Click on **Next**. The following screen displays:



6. Select the port to which the LandPhone is attached, eg COM1, and click on **Next**. You are asked to wait whilst the modem installs, and then the following screen displays:



7. Click **Finish** to finish the installation.

Software-initiated fax and data calls

Fax and data calls are initiated from your computer.

To make a call, do the following:

1. Connect your computer to your phone.
2. Start the software program on your computer.
3. Follow the software prompts.

Note: You cannot use a conventional fax machine with the LandPhone. You can only use appropriate fax software. For a list of fax software solutions, refer to your service provider.

Making a data call using HyperTerminal

➔ Making an outgoing data call

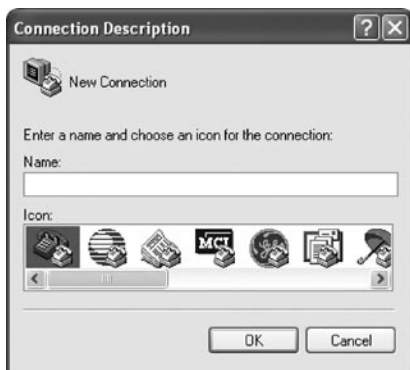
To make an outgoing data call using HyperTerminal:

1. Run the HyperTerminal software from Windows. (HyperTerminal is usually located in **Start > Programs > Accessories > Communications**.)
2. Type **Test** (or another name for the connection) in the displayed window, then click **OK**. The **Connect To** window displays.
3. Select the **Standard 2400 bps Modem** in the modem lists, then click **OK**.
4. In the **Connect** window, click **Cancel**.
5. In the Hyperterminal screen, type **AT** and press **<Enter>**. The terminal returns the response **OK**.
6. If you are ready to make a data call, dial to the required number in the format **'ATDT*****'** (where ********* is the dialed number) and press **<Enter>**. For example, to enter **00 44 20 7123 4567**, dial **'ATDT00442071234567'**.

➔ Receiving an incoming data call

To receive an incoming data call using HyperTerminal:

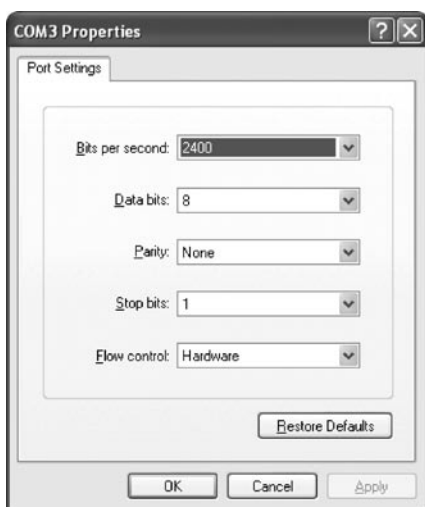
1. Run the HyperTerminal software from Windows. (HyperTerminal usually located in **Start > Programs > Accessories > Communications**.) The following window displays:



2. Type **Test** (or another name for the connection) in the displayed window, then click **OK**. The **Connect to** window displays:



3. In the **Connect using:** drop down list, select either 'Standard 2400 bps modem', or select the COM port to which the LandPhone is attached, for example 'COM1' (if you are using COM1). Click on **OK**. The **COM Properties** window displays:



4. Complete this screen as follows:

- Bits per second – 2400
- Data bits – 8
- Parity – None
- Stop bits – 1
- Flow control – Hardware

Then click on **OK**.

The HyperTerminal is ready to receive a data call. Type **ATA** (in upper case) to answer the incoming call.

Preparing for a data call using dial-up networking

1. Create a new connection. To do this, in Windows select **Start > Control Panel > Network Connections**, then click on **Create New Connection**. The **New Connection Wizard** window displays:



2. Click on **Next**. The following screen displays:



3. Select **Connect to the network at my workplace**, and click on **Next**. The following window displays:



4. Click on **Dial-up connection**, and click on **Next**. The following window displays:



5. Select the device you set up in 'Software setup' on page 49, then click on **Next**. You are prompted to enter your company name. This is the name given to the connection. Type in a suitable name, and click on **Next**. The following window displays:

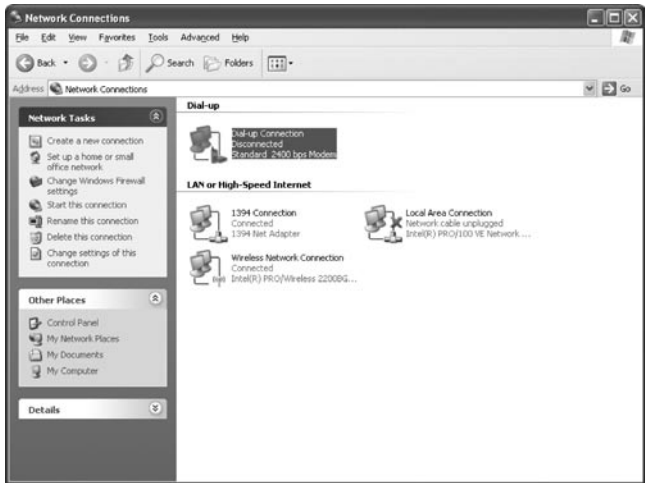


6. Type in the telephone number that you want to use to make this connection, and click on **Next**. The following screen displays:



7. Click on **Finish** to complete the connection setup.

8. In Control Panel, double click on the connection icon of the connection you created.



The following screen displays:



9. Type your username and your password, and click on Dial.

Guidelines for safe and efficient use

To get the most from your Inmarsat LandPhone read the following guidelines thoroughly.

Terminal care

- Do not expose your terminal to liquid or moisture.
- Do not expose your terminal to extreme hot or cold temperatures.
- Do not expose your terminal to lighted candles, cigarettes, cigars, open flames, heat sources, etc.
- Do not drop, throw or try to bend the terminal as rough treatment could damage your product.
- Do not expose your terminal to excessive vibration.
- Do not paint your terminal as the paint could obstruct the air vents or adapter jacks and prevent normal use.
- Do not attempt to disassemble your product. A broken warranty seal will void the warranty. The terminal does not contain consumer serviceable components. For service information, contact your LandPhone service provider.

Treat your product with care. Keep it in a clean and dust free place. Use a soft damp cloth to clean your product.

Antenna care

- Do not use your product with any unauthorized antenna or modifications or attachments. These may violate the appropriate regulations and produce radio frequency (RF) energy above or below the recommended limits, and may cause loss of performance.
- Do not expose your antenna to a corrosive atmosphere, as this may reduce the lifespan of the antenna

Blasting areas

- Do not use your product in blasting areas or in areas where 'TURN OFF YOUR TWO-WAY RADIO' is posted to avoid interfering with blasting and similar operations. Construction crews often use remote control RF devices to set off explosives.

Power supply

- Connect the AC adapter (power supply) only to a designated power source as marked on the product.
- To reduce risk of damage to the electric cable, remove it from the outlet by holding onto the AC adapter rather than the cable.
- Do not use the AC adapter outdoors or in damp areas.

Types of tone

| TYPE OF TONE | SOUND | DESCRIPTION |
|-----------------------|--|--|
| Dial tone | Continuous tone | Telephone ready for use |
| Ring back tone | Long tones with approx. 4 seconds interval | Call being connected |
| Fast busy tone | Continuous short tones | <ul style="list-style-type: none">• Called number busy• Call failure• Phone off hook for a long time (approx. 10 seconds) and also after completion of using command tools |
| Ringing tone | Depends on the telephone set | Incoming call |
| Power management tone | Continuous tone duration approx. 0.5 seconds | Phone is in standby mode |
| Unregistered tone | Continuous tone duration approx. 1 second | Phone is not registered |
| Progress tone | Short tone with 2 second interval | Waiting to be connected after dialing |
| Call waiting tone | Short tone with 3 second interval | There is an incoming call during in progress call |

Display indicators

| SYMBOL / DISPLAY TEXT | DESCRIPTION |
|-----------------------|---|
| ----- | Network signal strength (none) |
| ■----- | Network signal strength (1-Bar) |
| ■■----- | Network signal strength (2-Bars) |
| ■■■----- | Network signal strength (3-Bars) |
| ■■■■----- | Network signal strength (4-Bars) |
| ■■■■■ | Network signal strength (full-bar) |
| ● | Full satellite service (calls can be made and/or received) |
| ○ | No satellite service (no calls can be made and/or received) |
| Check card | SIM card inserted incorrectly |
| Insert SIM | No SIM card inserted |
| Enter SIM PIN | PIN needs to be entered |
| Enter SIM PUK | PUK needs to be entered |
| Please wait | LandPhone is processing your request |
| Searching | LandPhone is searching for satellite signal |
| No network | No calls can be made and/or received |
| SAT | Satellite connection made |
| Channel number? | Channel number needs to be entered |
| Please dial | LandPhone is ready for you to dial |
| No number | No number provided after off hook |
| Please dial (Tools) | Command sequence for certain function |
| Calling | Call is being established |
| Connecting | Call is being connected |
| Call failure | Call is not successful/called party is busy |

| | |
|------------------|--|
| Call in progress | Call is in progress |
| Incoming call | Incoming call |
| 00:00 | Call duration |
| Min. volume | Minimum volume level setting |
| Volume # | Volume level setting |
| Max. volume | Maximum volume level setting |
| H | Call is on hold/call holding is active |
| W | Call waiting is active |
| F | Call forwarding is active |
| B | Call barring is active |
| OK | Your request has been processed |

Commands for supplementary services

| COMMAND | SERVICE |
|-----------------------------------|--|
| #60* | Enable/disable PIN |
| #61* | Change PIN code |
| #62* | Enter new channel |
| #63* | Erase stored channels |
| #53*# | Increase terminal volume |
| #53** | Reduce terminal volume |
| *33*[PIN]## | Call barring all outgoing calls activate |
| #33*[PIN]## | Call barring all outgoing calls deactivate |
| *#33## | Call barring all outgoing calls check status |
| *35*[PIN]## | Call barring all incoming calls activate |
| #35*[PIN]## | Call barring all incoming calls deactivate |
| *#35## | Call barring all incoming calls check status |
| #330*[PIN]## | Call barring to cancel all |
| *03**[PIN]*[New_PIN]*[New_PIN]## | Call barring to change PIN |
| **21#[Phone no.]## | Call forwarding all calls activate |
| ##21## | Call forwarding all calls deactivate |
| *#21## | Call forwarding all calls check status |
| **61*[Phone no.][**[Time Delay]## | Call forwarding no answer activate |
| ##61## | Call forwarding no answer deactivate |

| | |
|--------------------|--|
| *#61## | Call forwarding no answer check status |
| **62*[Phone no.]## | Call forwarding not reachable Activate |
| ##62## | Call forwarding not reachable deactivate |
| *#62## | Call forwarding not reachable check status |
| **67*[Phone no.]## | Call forwarding busy activate |
| ##67## | Call forwarding busy deactivate |
| *#67## | Call forwarding busy check status |
| *43## | Call waiting activate |
| #43## | Call waiting deactivate |
| *#43## | Call waiting check status |
| #54* | CLI enable |
| #55* | CLI disable |

Troubleshooting

The LCD does not display

- Check that the power adapter is correctly connected to the power outlet.
- Check that the terminal is correctly connected to the power adapter, with the right polarity.
- Check that the ON/OFF button has been operated for at least 4 seconds.

If the problem continues, contact your service provider.

Unable to register with the network

➔ If the LCD displays 'No network' or 'Searching' for more than five minutes:

- Check that your SIM card is not broken or damaged.
- Check that the antenna cable is correctly connected to the antenna.
- Check that the antenna is directed to the satellite.
- Check that the antenna is free from any obstructions.

If the problem continues, contact your service provider.

The signal reception is weak

➔ If the LCD displays 1 or 2 signal bars:

- Check that the antenna is directed to the satellite.
- Check that the antenna is free from any obstructions.

If the problem continues, contact your service provider.

There is no dial tone

- Check that the LCD displays **SAT**. If not, try to register with the network manually by following the procedure in 'Registering with the network' on page 22. Wait for LCD to display '**SAT**'.
- Check that your telephone is correctly connected to the LandPhone.
- Check that your handset is operational by testing another handset.
- Check that the antenna is correctly pointed.

If the problem continues, contact your service provider.

There is no ring-back tone

- Check that the LCD displays the correct dialed number followed by '**Calling**' and then '**Connecting**'. If not, hang up and dial again.
- If you are using a pre-paid SIM card, ensure that you still have sufficient credit left in your SIM card.

If the problem continues, contact your service provider.

Calls always get cut-off

- Check that all cable connectors are tightened securely.
- Ensure that you have good signal reception by checking the antenna.
- Try to register with the network manually by following the procedure in 'Registering with the network' on page 22.
- Check that the antenna is securely mounted and correctly pointed with no obstacles between it and the satellite.

If the problem continues, contact your service provider.

There is voice echo on the call

- Check that the LandPhone's volume is set to 1. If it is set higher, reduce it to 1, and use the telephone handset's volume control to alter call volume.
- Adjust the handset volume
- Ensure you are using a good quality handset

Unable to receive calls

- Check that the LCD displays **SAT**. If not, try to register with the network manually by following the procedure in 'Registering with the network' on page 22. Wait until the LCD displays **SAT**.
- Check that the ring volume of your telephone is set to the proper level.
- Check that the telephone connector is correctly connected to the LandPhone.
- Ensure that call barring feature is not activated.
- Check that your handset is operational by testing another handset.
- Ensure that your calls are not set to be diverted.

If the problem continues, contact your service provider.

Unable to make calls

- Check that the LCD displays **SAT**. If not, try to register with the network manually by following the procedure in 'Registering with the network' on page 22. Wait until the LCD displays **SAT**.
- Ensure that call barring feature is not activated.

If the problem continues, contact your service provider.

Unable to use supplementary services

- Check with your service provider to make sure that your subscription covers the required supplementary services.

For your safety

For your own protection and safety, please read the following sections carefully.

➔ Lightning

During a lightning storm:

- Do not install, adjust or repair the antenna.
- Avoid using your terminal.
- If possible, disconnect the power adapter from the power supply and the antenna cable from the terminal. Your product is not power surge and lightning protected.

➔ Electric shock

To prevent electrical shock:

- Do not open the terminal.
- Do not install the antenna and cable near any electrical power line or source.
- Do not insert any foreign objects in any groove or gap of your terminal. This could cause electric shock, short circuit, electric burns or damage to the hardware.
- Keep the power adapter cable and antenna in good condition. If the cable is damaged, replace it with a new one.
- Hold the power adapter head, and not the cable, when pulling the power adapter out of the power outlet.
- Disconnect the power adapter cable from the power supply when you clean the terminal.

➔ Potentially explosive atmosphere

- Turn off your product when in any area with a potentially explosive atmosphere. Very rarely, your product or its accessories may generate sparks. Sparks in such areas could cause an explosion or fire resulting in injury or even death.
- Areas with a potentially explosive atmosphere are often, but not always, clearly marked. They include fuelling areas, such as petrol stations, below deck on boats, and areas where fuel or chemicals or particles, such as grain, dust, or metal powders are present.
- Do not transport or store flammable gas, liquid, or explosives in the compartment of your vehicle or house/building where your product and its accessories are installed.

Technical specifications

Terminal

| | |
|------------------------|--|
| General: | |
| Dimensions | 1.9in. x 5.9in. x 8.2in. (50mm x 150mm x 210mm approx.) |
| Weight | 0.9lbs (400g) |
| Power source: | |
| Operating voltage | 10.5 - 24 Vdc |
| Operating current | <1000 mA (typical) |
| Line interface: | |
| Voice | 2-Wire |
| Connector | RJ-11 |
| Dialing | DTMF |
| Environment: | |
| Operating temp. | 0°C to +50°C |
| Humidity | 5% to 95% non-condensing |
| Storage temp. | 0°C to +65°C |

AC/DC adapter

| | |
|-----------------|-----------------------|
| AC power supply | 100-235 Vac, 50/60 Hz |
| Power output | 12 V, 1.4A (typical) |

Antenna

| | |
|----------------------|--|
| General: | |
| Type | Outdoor |
| Impedance | 50 ohm |
| Gain | 9 dBi |
| Beamwidth | 70° |
| Mechanical: | |
| Dimensions | 6.7in. x 6.7in. x 3.9in. (170mm x 170mm x 100mm) |
| Connector | N-type female |
| Weight | 0.9lbs (400g) |
| Mounting: | |
| Elevation adjustment | 15° to 90° (vertical) |
| Pole size | 0.75in. to 1.25in. (19mm to 32mm) (to be provided by the user) |

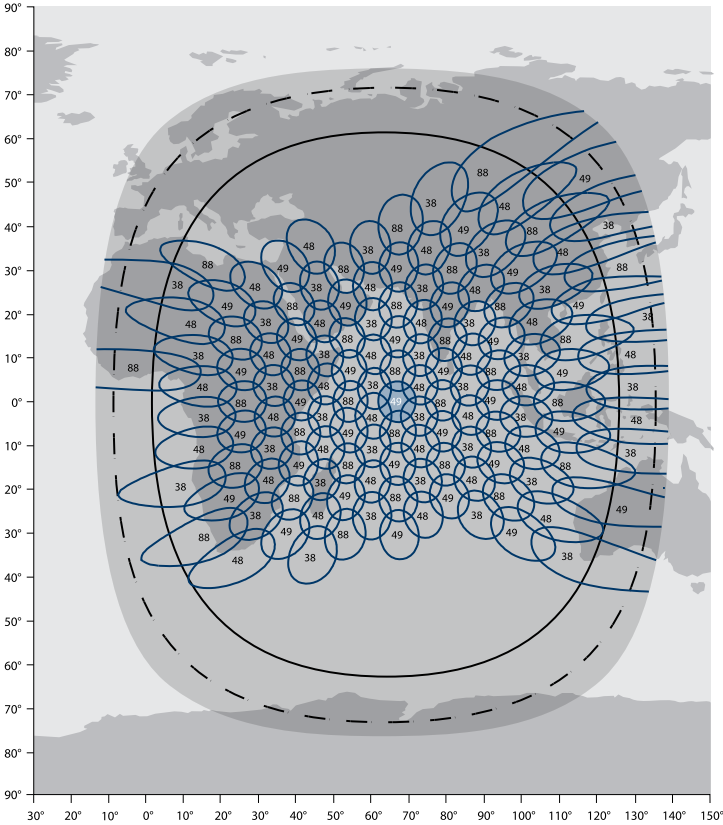
Cable

| | |
|-----------------------|--|
| Type | RG-58 coaxial or equivalent with cable loss less than 0.7 dB/m |
| Impedance | 50 ohm |
| Length | 34.5ft (10.5m) |
| Connector to antenna | N-type male |
| Connector to main box | SMA male |
| Total cable loss | within 5 dB to 7 dB |

Packaging

| | |
|----------------|--|
| Outer box size | 11in. x 9.5in. x 6.5in. (280mm x 242mm x 166mm) |
|----------------|--|

Channel number map



- Spot beam coverage
- 20° contour of I-4 F1
- 49 Location of satellite
- 10° contour of I-4 F1
- I-4 satellite F1

Outside the 20 degree contour line shown above, greater care may be required by the user to obtain service, depending on local topography and product used. Inmarsat will not guarantee service outside the 10 degree coverage area shown. For up to date channel number information, go to inmarsat.com

inmarsat.com/landphone

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