



FleetPhone

Installation guide



Introduction

FleetPhone is a fixed satellite phone service ideal for use by master and crew on smaller vessels. It consists of a below deck terminal with an integrated voice handset, a below deck connection box, and an omni-directional antenna for mounting above deck.

Package contents

When you unpack the Inmarsat FleetPhone, make sure you have the following:

- Antenna
- Antenna pole mount
- Mounting assembly, including:
 - 2 x wing nuts and 2 x washers to attach the antenna to the antenna pole mount
 - 4 x U clamps, 2 x clamp brackets, 8 x self-locking nuts and 8 x washers to attach the pole mount to a suitable fixture
- Connection box
- Terminal with built-in handset, including:
 - Wall-mounting plate and screws
- 2 x radio frequency (RF) cables
 - 1 to attach the antenna to the connection box
 - 1 to attach the connection box to the terminal
- 2 x power cables
 - 1 to attach the connection box to the external power supply
 - 1 to attach the connection box to the terminal

Subscription and SIM card

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

Installing the FleetPhone

This section describes each of the components of FleetPhone, and provides detailed instructions on installation. Refer to the FleetPhone user guide for details on operational use.

Installing the antenna

FleetPhone is supplied with an antenna, an antenna cable and a customised pole and mounting plate assembly, for installation of the antenna above deck. Note the following:

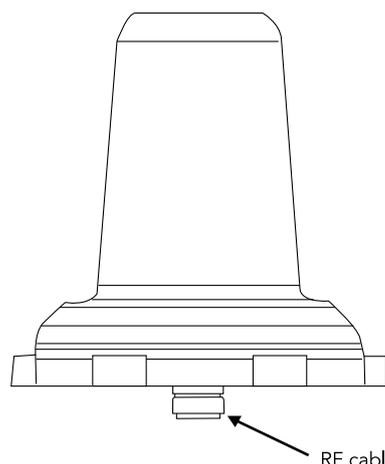
- The customised mounting plate assembly enables you to attach the antenna to the pole, and then install the assembly at a suitable location above deck. The pole mount ensures moisture runs away from the antenna and is designed to withstand the rigid mechanical stress encountered on a ship.
- The omni-directional antenna transmits and receives signals to and from the satellite.

🔗 Installing the antenna

To install the antenna:

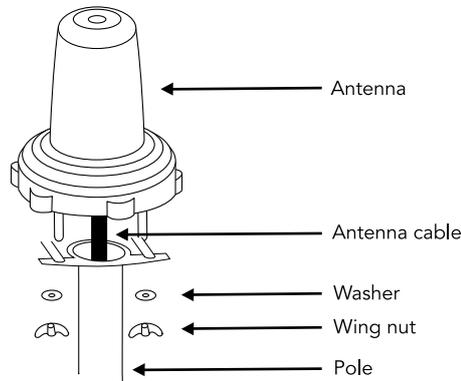
1. Choose a suitable location. Note the following:

- The antenna must be positioned with clear line of sight to the satellite in all directions, and with no obstructions, such as masts, within 3m (9ft 10in).
- On smaller craft, Inmarsat recommends that you position the antenna at least 1.5m (4ft 11in) above the deck.

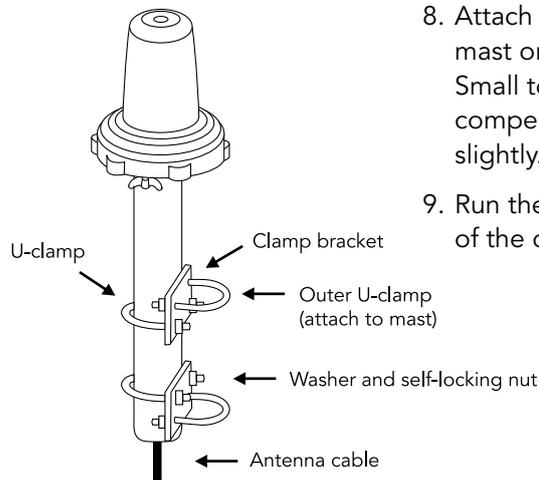


2. Connect one end of the antenna cable to the RF cable connector on the underside of the antenna.
3. Remove the plastic cable guide from the base of the antenna, by removing the holding screw.
4. Run the cable through the inside of the pole mount.
5. Replace the plastic cable guide, and secure with the holding screw.

6. Attach the antenna to the pole mount using the supplied wing nuts and washers, as shown in the diagram below:



7. Attach the U-clamp assembly to the pole mount, as shown below:



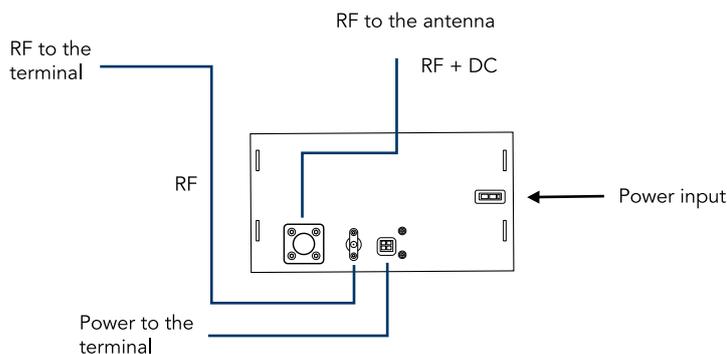
8. Attach the pole mount to a suitable above decks mast or mounting point, using the outer U-clamps. Small tolerances in the mast diameter can be compensated for simply by bending the U-clamps slightly.

9. Run the antenna cable to the below decks location of the connection box.

Installing the connection box

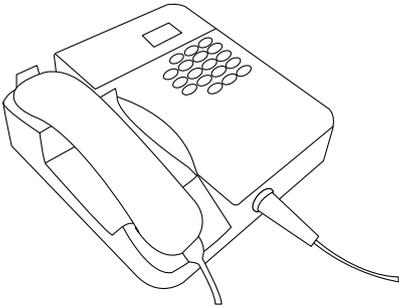
The connection box provides power for the antenna and handset terminal. Install it in a suitable enclosed below decks location; for example, in a cupboard. It must be sheltered from the wind, and protected from water, salt and humidity.

The connection box has four ports, indicated in the diagram below:



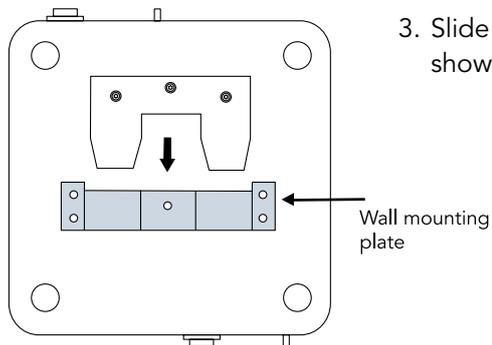
Installing the terminal

The below deck handset terminal converts the signal from the satellite into a voice call, which you can make or receive using the built-in keypad and receiver.



The terminal must be located within 3m (9ft 10in) of the connection box, to allow for cables to be attached. A wall-mounting kit is supplied. If you want to wall-mount the terminal:

1. Choose a suitable location. Note the following:
 - The terminal can be mounted vertically, on a wall, but must not be mounted overhead.
 - The wall surface should be flat and even.
 - Ensure the SIM card slot on the right side of the terminal is easily accessible, in case you need to remove and replace the SIM card.
 - Ensure all the connectors on the terminal are easily accessible.
2. Fix the mounting plate to a suitable location on the wall, using the screws provided.
3. Slide the terminal on to the mounting plate, as shown left:



Attaching the cables

The following cables (all supplied) are required to connect together the components of the FleetPhone:

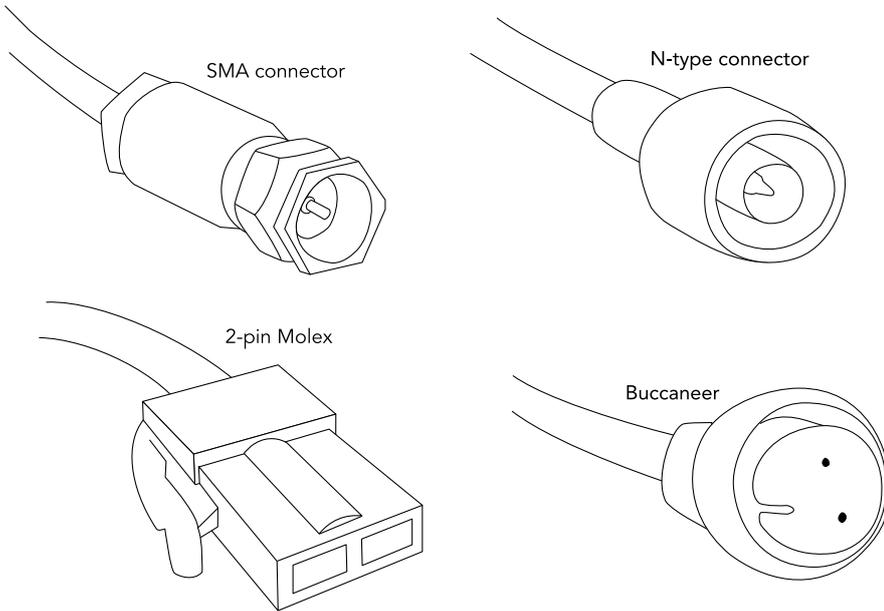
RF cables

Connection from/to	Cable length	Cable Connector types
Antenna to connection box	10m (supplied) 20m (optional)	N-type at both ends. One end connects to the base of the antenna and runs down the inside of the pole mount to the RF connector on the connection box
Connection box to terminal	3m (supplied)	SMA-type at both ends. One connects to the connection box, the other connects to the 'Antenna' connector on the terminal

Power cables

Connection from/to	Cable length	Cable Connector types
Connection box to terminal	3m (supplied)	4-pin Molex on the connection box. Buccaneer on the terminal
External power to connection box	3m (supplied)	2-pin Molex on the connection box. Power socket connector to the power supply

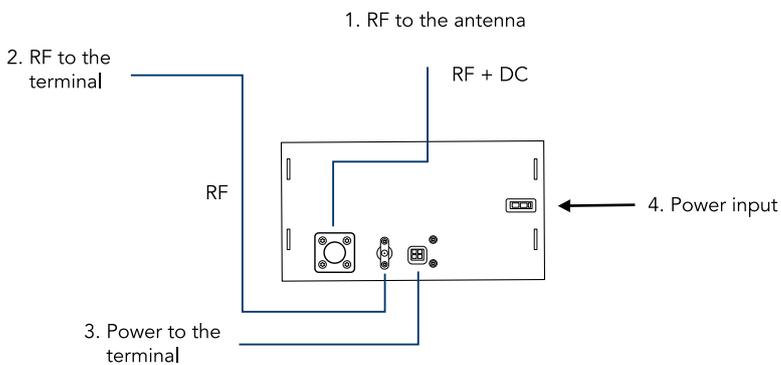
The following illustrations will help you identify each of the listed connector types:



If the distance between the components is less than the cable length supplied, do not cut the cables, as they are designed to match the signal transmitting and receiving capability of the components. Also, a shortened cable could affect voice quality.

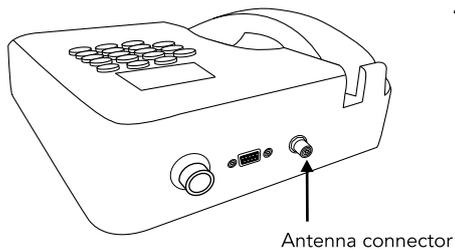
Note: Only use a cable of the type and length recommended to maintain the signal receiving capability of the terminal.

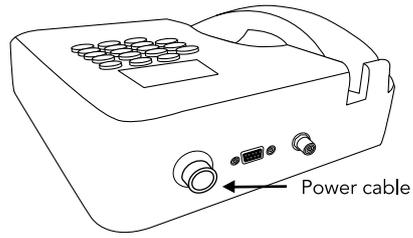
Attach the cables as follows:



1. RF cable from the antenna to the connection box.

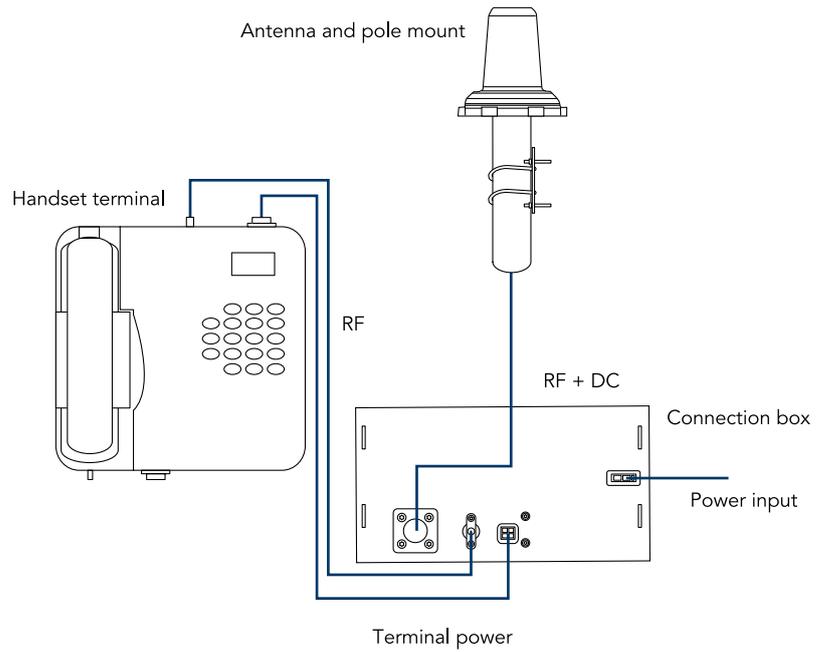
2. RF cable from the connection box to the antenna connector on the terminal (as shown left):





3. Power cable from the connection box to the 'DC Power' connector on the terminal (as shown left):
4. Power cable from the connection box to the power supply.

Refer to the following diagram for guidance:



You are now ready to use FleetPhone. Refer to the FleetPhone user guide for details.

Technical specifications

➔ Antenna

Type	Active omni-directional/RHCP Helical
Dimensions	170mm x 170mm x 100mm (6 ⁵ / ₈ in x 6 ⁵ / ₈ in x 3 ⁷ / ₈ in)
Weight	600g (1.3lbs)
Survival temperature	-40 to +80°C (-40 to +176°F)
Operational temperature	-25 to +55°C (-13 to +131°F)
Impedance	50 ohms
Gain	2 dBi
Elevation	> 20 degrees sub I-4 satellite
Pitch/Roll	+/- 20 degrees
G/T	-23.5 to -24.5 dBK
EIRP	5 to 6 dBW

➔ Terminal

Type	Integrated handset and voice terminal
Dimensions	210mm x 210mm x 70mm (8 ¹ / ₄ in x 8 ¹ / ₄ in x 2 ³ / ₄ in)
Weight	1200g (2.6lbs)
Storage temperature	-40 to +85 °C (-40 to +185 °F)
Operational temperature	-25 to +70 °C (-13 to +158 °F)
Humidity	5-95% RH non-condensing
Frequency	TX (1626.5-1660.5 MHz) RX (1525.0-1559.0 MHz)
Transmitter power	2W (at the antenna connector)

➔ Connection box

Input voltage	10-32V DC
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➔ Cabling

Total RF cable loss	8 – 10 dB
• 10m RF cable attenuation/loss	6 – 6.5 dB
• 3m RF cable attenuation/loss	2 – 2.5 dB

Safety information

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

⤵ Lightning

During a lightning storm:

- Do not install or adjust the antenna.
- Avoid using your terminal.

CAUTION: Your product is not power surge and lightning protected.

⤵ Electric shock

To prevent electrical shock:

- Do not open the terminal or connection box.
- Do not insert any foreign objects in any groove or gap of your terminal or connection box. This could cause electric shock, short circuit, electric burns or damage to the hardware.
- Keep all the equipment in good condition.
- If any cable is damaged, replace it with a new one.
- Disconnect the power cable from the power supply when you clean the connection box or terminal.

⤵ Potentially inflammable or explosive atmosphere

Turn off your product when in any area with a potentially inflammable or 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.

⤵ Power source

Connect the power cable from the connection box to a correctly rated DC power source (see 'Technical specifications' for details).

⤵ Antenna safe distance

The antenna emits radio frequency energy when switched on. For safety, keep a minimum safety distance of 0.3m (1ft) from the antenna when it is operational.

Guidelines for safe and efficient use

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

➤ Terminal and connection box care

- Do not use the terminal and connection box outdoors.
- Do not expose your terminal and connection box to liquid or moisture.
- Do not expose your terminal and connection box to extreme hot or cold temperature, for example close to the engine room.
- Do not expose your terminal and connection box to lighted candles, cigarettes, cigars, open flames, heat sources, etc.
- Do not drop, throw or try to bend the terminal and connection box, as rough treatment could damage your product.
- Do not expose your terminal and connection box to excessive vibration.
- Do not paint your terminal and connection box 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 FleetPhone 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 unauthorised 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 attempt to disassemble your product. A broken warranty seal will void the warranty. The antenna does not contain consumer serviceable components. For service information, contact your FleetPhone service provider.

Legal and Regulatory

- For Declaration of Conformity, go to inmarsat.com/fleetphone
- Note that FleetPhone is not intended for the purposes of Safety, GMDSS or official communications with maritime authorities.
- For information re: GMDSS-compliant services please contact your Inmarsat service provider.

www.inmarsat.com/fleetphone

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