

# RapidSAT-700

## Quick Start Guide



The BEAM RapidSAT-700 is a portable satellite communications system (operating on the Inmarsat BGAN network), which is fully contained and housed in a rugged Pelican case ready for deployment in emergency situations, crisis response, and for rapid setup of voice and broadband in remote areas.

It supports data rates up to 492kbps, provides IEEE 802.11 a/b/g WiFi connection up to 45m outdoors, 10/100Mbps LAN ports, RJ11 voice/fax & handset, voice/data connectivity, and integrated power management with status indicators and fan-forced cooling. The RapidSAT-700 contains inbuilt Lithium battery backup of 538WHr, delivering 24 hours of transmit time, and is housed in a water resistant case (when case is closed in transit/storage).

### Case Contents



Explorer 700  
Transceiver  
(TT-00-3720A)



Explorer 700 Antenna  
(TT-3703A)



Explorer Handset  
(TT-01-3625B)



30m Antenna Cable (TT-01-403720A-945) on  
Cable Reel



Explorer 700 Getting  
Started Pack



Mains Power Cable 2m

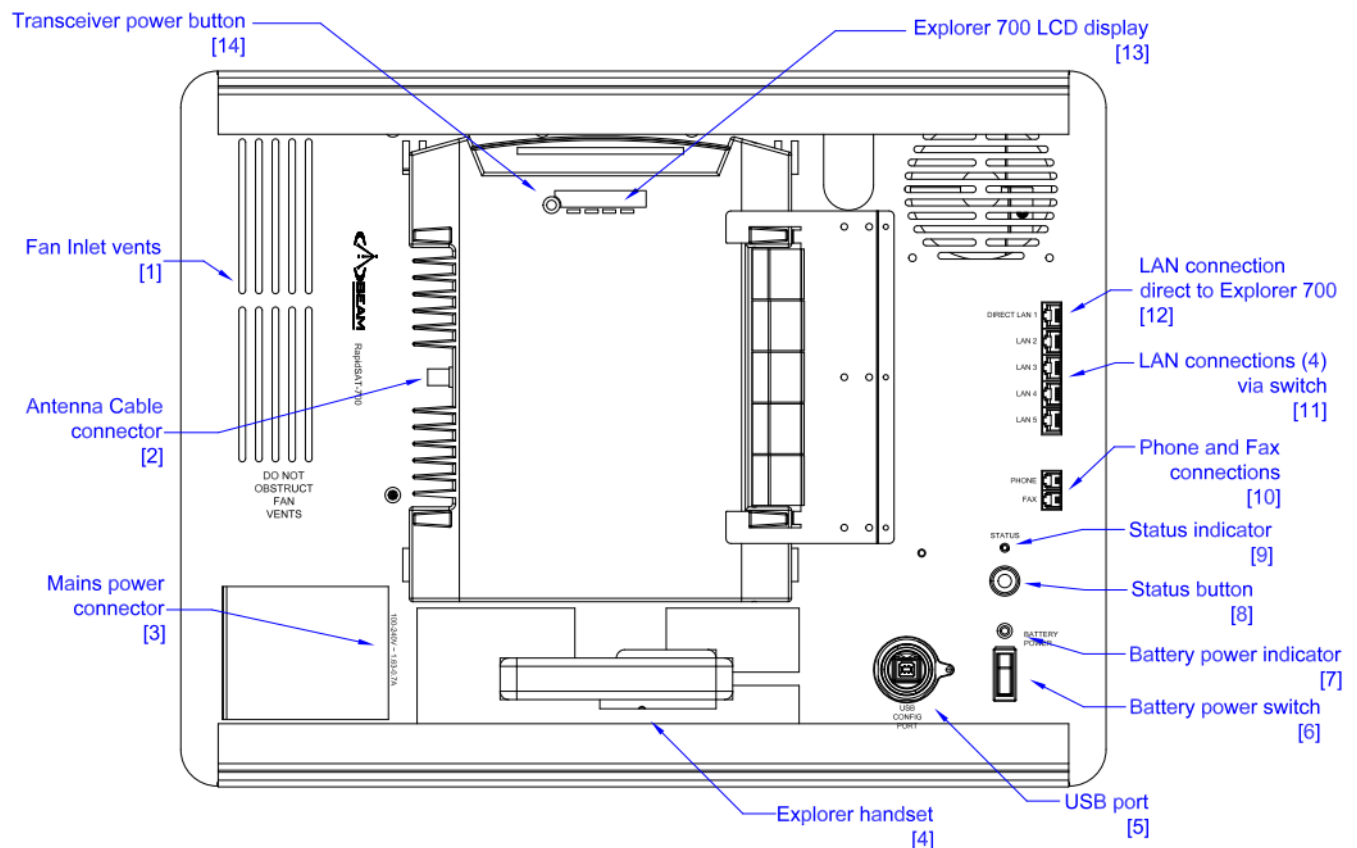


USB A-B Cable 2m



Travel Adapter

## Internal Layout



## Deployment



The antenna unit contains a microwave transmitter.  
The minimum safe distance while operating is 1.0m

- Remove the Explorer 700 antenna from the case and position with an unobstructed view towards the satellite \*\*
- Remove the cable reel from the case. Screw the TNC (threaded) cable end to the mating connector on the left side of the transceiver [2].  
Unreel the cable and attach the other snap fitting connector to the antenna.
- Turn the Battery Power switch [6] on (rocker switch down). The Battery power indicator [7] will light green.
- Press and hold the power button next to the display [14] on the Explorer 700 transceiver until the green power indicator lights up.
- Enter the SIM PIN if required
- Using the built-in compass, rotate and tilt the antenna so that it points in the approximate direction of the BGAN satellite.
- Use the transceiver displayed signal strength and the pointing sound to find the highest possible signal strength, while slowly rotating and tilting the antenna.
- When you have obtained the highest possible signal strength, press the OK button. The transceiver now starts to establish a connection to the BGAN network.
- When the display [13] shows READY, the terminal automatically activates the LAN and WLAN\*\* interfaces if enabled.
- Refer to the Explorer 700 Getting Started guide for information on setting up network connections

\*\* For security purposes, the WLAN does not connect on initial power up. From Settings first disable then re-enable. See Trouble-shooting

## Charging

- Ensure that the transceiver is turned off. (*Press and hold the power button [14] for 2 seconds*)
- Turn the Battery Power switch [6] off
- Connect the mains power cable to the IEC inlet [3]. Plug the other end into an outlet and apply power. The Status Indicator [9] will light steady ON in a colour indicating current battery capacity.
- A complete charge cycle, including the transceiver internal batteries may take up to 6 hours. Progress can be monitored on the Status Indicator [9]

- Green - greater than 80%
- Amber - between 20% and 80%
- Red- less than 20%

**CAUTION: When charging, the extraction fan is operating. Please keep the fan and air vents clear from obstructions**

## Operational Status Indicators

When the Status push-button is pressed, LED illumination format is as follow:

Battery capacity status + [Error]\*\* + [Warning & Cell Number]\*\*

Where –

**Battery status:** Either Red or Amber or Green

- Green indicates greater than 80% of the battery power remaining.
- Amber shows there is between 20% to 80% of the battery power remaining.
- Red indicates less than 20% of the battery power remaining.

**Error:** 3 fast Red flashes

- Error means the output voltage of internal plug-pack is abnormal during charging.

**Warning:** 3 fast Amber flashes followed by a count of slow Green flashes indicating the faulty cell number

e.g. 1 Green flash = cell no.1 has warning

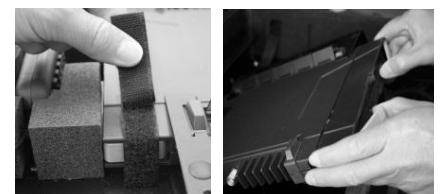
- Warning means one or more internal cell is not stabilizing.
- 

\*\* Only displayed if an error/warning is present

## Inserting the SIM

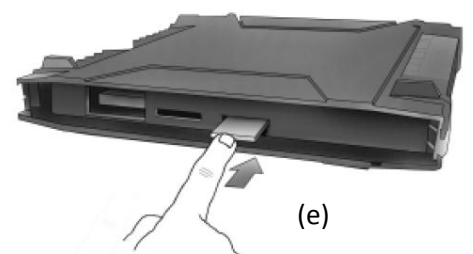
The SIM slot is located behind the battery.

- Undo the 2 hold down straps at each end of the transceiver by pulling the tabs to separate the Velcro.
- Raise the end of the terminal and remove the battery.
- Press the eject button at the SIM slot marked USIM #1 to release the SIM card holder. The SIM card holder is a small plastic frame designed to hold the SIM card.
- Take the SIM card holder out and place the SIM card in the holder, with the printed side visible.
- Insert the holder with the SIM card into the SIM slot marked USIM #1. Place the holder with the printed side facing down. Press gently until it clicks.



(a)

(b)



(e)



Ensure that the SIM is securely retained in the holder before inserting into the slot. Failure to do so may result in the SIM falling into the transceiver

## Making Calls

Once the RapidSAT has been deployed, refer to the Explorer700 documentation and manuals for details on configuring the terminal, placing calls and general operation.

## Shutdown / Pack Up

Turn off Battery power switch.

Turn off the Transceiver by holding down the power button next to the display.

Disconnect all cables, and re-reel the antenna cable. Fit cable Reel and Antenna into case.

Put all accessories into the satchel and place in the antenna cavity.




Due to the IATA Dangerous Goods Regulations, the RapidSAT-700 cannot be transported on a cargo or passenger aircraft as either normal checked-in or carry-on baggage due to its 500Wh battery capacity.

## Trouble-shooting

Problem	Resolution
Charging 6hrs and the Status indicator still indicates Orange or Red.	<ul style="list-style-type: none"> <li>. Ensure Power Switch [7] is off and Explorer 700 is off.</li> <li>. Press Status Button and observe Status LED for error/warning.</li> </ul>
Can't connect with WIFI.	<ul style="list-style-type: none"> <li>. On Explorer 700, press down arrow key → Settings → Interfaces → WLAN → OFF, then → ON.</li> </ul>
The left Status LED on Explorer does not light while charging.	<ul style="list-style-type: none"> <li>. This is normal behaviour when the Explorer 700 unit is off.</li> </ul>
The Battery Power LED [7] is toggle on / off during charging.	<ul style="list-style-type: none"> <li>. This is normal during charging while the Battery power switch is in the off position. LED off indicates the internal battery is being charged. LED on indicates internal battery power is connected to charge the transceiver.</li> </ul>
Can't access to Explorer's setup menu.	<ul style="list-style-type: none"> <li>. Ensure Explorer is on.</li> <li>. Plug RJ45 cable between PC and "DIRECT LAN1" port on the case.</li> <li>. Open Internet Explorer, go to <a href="http://192.168.0.1">http://192.168.0.1</a></li> </ul>

## Specification Summary

POWER SPECIFICATIONS	
Rated Input	110-240AC ~ 1.63-0.7A
Average Power Consumption	10.1 W•h operating in-call <sup>(1)</sup>
Standby	8.6 W•h
Battery Capacity	48 W•h - EXPLORER700 5 x 98 W•h - Case
Charge Time	6 hours
Battery Type	Lithium Ion (Rechargeable)
INTERFACES	
X5 LAN ports	RJ45 ports x1 direct x4 via internal Ethernet switch
USB port	Std B connection
x2 Phone/Fax ports	RJ11 ports
Power Interface	IEC three pin plug (C13) 
ENVIRONMENTAL	
Physical Dimensions	63cm(L) x 50cm(w) x 30.2cm(h)
Weight	27 kg
IP Rating	IP67 - Closed
Operating temperature	-20°C to +55°C
Storage temperature	-20°C to +60°C

(1) Performance depends on a wide range of factors and different modes of actual usage