

6 Powering Up (All models)

When all previous 1-5 steps have been completed, confirm that the antenna(s) are connected and the power loom active. Once power is connected, allow up to 3 mins for the LEDs to display the following:

GPS/Log	●	Error in log
		Blinks every second:
	●	GPS Lock
GSM & Iridium	●	No GPS Lock
	●	Good Signal
	●	Low signal
Battery (optional)	●	No signal
		Flashing = not registered
	●	Fully charged
	●	Low charge
	●	No charge/flat
		Flashing = running on battery

In SLEEP mode ALL LEDs will be off.
If no external power or batteries ALL LEDs will be OFF

If any problems, try the following:

- Repeat these instructions to ensure everything has been completed.
- Is there power to the unit? Check all connections and fuses.
- Is the SIM card active? If not refer to your Service Provider
- If the antenna signal is not strong you will need to move location to access better coverage and re-test.

For additional troubleshooting refer to your manual or www.beamcomm.net

US19MAM002502



Item	Connector	Description	RST450	RST460	RST470	RST480
A	Microphone Input	2.5 mono				
B	Speaker Output	3.5 mono				
C	Control Panel	RJ45	●	●	●	●
D	Auxiliary	7pin DIN	●	●	●	●
E	Mode Button	Push button	●	●	●	●
F	SD Card	SD	256mb	256mb	256mb	256mb
G	USB Configuration port	USB (5pin)	●	●	●	●
H	GPS LED	Tri colour	●	●	●	●
I	GSM LED	Tri colour	●	●	●	●
J	Battery LED	Tri colour	●	●	●	●
K	Iridium LED	Tri colour	●	●	●	●
L	Configuration port	D9 Serial	●	●	●	●
M	GSM Antenna	SMA	●	●	●	●
N	Power / IO port	D15 HD	●	●	●	●
O	Battery / SIM cover		●	●	●	●
P	Iridium Antenna	SMA	●	●	●	●
Q	Device Port	D9 Serial	●	●	●	●
R	Thumb Screw		●	●	●	●
S	Batteries	Li-polymer	Accessory	Accessory	Accessory	Accessory
T	SIM Holder	GSM SIM	●	●	●	●
U	GPS Antenna	SMA	●	●	●	●
V	Mounting Holes	4mm	●	●	●	●

7 Install & Configure LeoTRAK (All models)



A. Install the LeoTRAK Management System (LMS) on your PC from the CD provided or via www.beamcomm.net

B. Connect PC to LeoTRAK "Config" Port via Serial cable (provided) OR USB cable

C. Configure LeoTRAK using the LMS program installed on your PC.



Thank you for purchasing BEAM LeoTRAK

This QuickStart Guide lists 7 steps to install and configure your BEAM LeoTRAK:

- Installing SD-Card
- Installing SIM card
- Installing Batteries (optional)
- Connecting Power loom
- Connecting Antenna
- Powering up
- Configuring LeoTRAK & testing

Package Contents:

Before you start, make sure you have all required components:

- LeoTrak unit
- Printed Manual
- Wiring Loom
- LeoTRAK CD
- Batteries (optional)
- Iridium Antenna (optional)
- SD Card
- GPS Antenna
- SIM Card
- GPRS Antenna (optional)

Starting with the front of BEAM LeoTRAK



CAUTION:

Before you install and operate your LeoTRAK, refer to the safety instructions in the "Installation & User Manual"



LeoTRAK Online

LeoTRAK Online is an enhanced tracking solution, providing web-based mapping, messaging, polling, and configuration of your LeoTRAK. See your Service Provider to activate this service - additional fees may apply.

1 Install SD-Card (All models)



A. Insert SD-Card: contacts facing up **B.** SD-Card will "click" into position



Setting up your BEAM LeoTRAK

Now turn your BEAM LeoTRAK around to the Back



2 Install SIM Card (RST460, RST480 models)



A. Unscrew battery cover



B. Eject card tray using a pen



C. Carefully insert SIM in tray with contacts (chip side) facing UP.

3 Install Batteries (optional) (All models)

Only use BEAM LeoTRAK Battery Kit. BOTH batteries must be installed together, DO NOT mix other batteries!



A. Turn battery label-side facing DOWN



B. Slide first battery on the bottom



C. Insert second battery on the top (label-side facing DOWN)



D. Replace cover, so it is flush with panel.



4 LeoTRAK Wiring Diagram for Power/Inputs/Outputs & Alert buttons (All models)

* General Purpose Input or Output configurable



Power Supply: 20W max. Recommend a 2A or 3A fuse fitted.

[0 to 35Vdc Tolerant]
High (1) > +7Vdc
Low (1) 0V < +5Vdc

Alarm Mode:
"Normally-Closed" Loop IN to OUT

Input Mode:
[MAX3232 +/-23Vdc Tolerant]
Logic (1) -23Vdc < +0.5Vdc
Logic (0) +5Vdc > +23Vdc

Output Mode:
[MAX3232 +/-5Vdc]
Logic (1) -5Vdc
Logic (0) +5Vdc

Input Mode:
[0 to 35Vdc Tolerant]
Logic (1) > 3Vdc
Logic (0) 0 < 0.4Vdc

Output Mode:
Open Collector Transistor, sinks up to 100mA to Ground:
Logic (1) Transistor OFF (collector floating)
[weak clamped internal 4k7ohm to 5V1 zener]
Logic (0) Transistor ON
[pulls to ground via a 6R8ohm current sense resistor]

Analog Input Mode:
10-bit Analog to Digital converter
0Vdc to 5Vdc input equates 0 to 5000

Digital Input Mode:
[0 to 35Vdc Tolerant]
Logic (1) > 4Vdc
Logic (0) 0 < 0.6Vdc

RED	[+] Vin	9 to 32VDC
BLACK	[-] 0V	Power Ground
YELLOW	[IN] Ignition / Accessory	
BROWN	[IN] Alarm Loop A	[or Digital Input]
GREEN	[OUT] Alarm Loop A	[or Digital Output]
PINK	[IN] Alarm Loop B	[or Digital Input]
GREY	[OUT] Alarm Loop B	[or Digital Output]
BLUE	[IN / OUT] GPIO* 1	
ORANGE	[IN / OUT] GPIO* 2	
WHITE	[IN] Analog	
BLACK	[IN / OUT] Extra Signal Ground	

5 Connect LeoTRAK Antennas



(All Models)
Connect "GPS" SMA to GPS Active Antenna

(RST470, RST480 Models)
Connect "Iridium" SMA to Iridium Satellite Antenna. Refer to recommended Iridium antenna installation in "User Manual".

(RST460, RST480 Models)
Connect "GSM" to Stub antenna, or you may use a cable extension to a high gain GSM antenna.

Other antenna options include:

900 GPS Helix



903 Dual-mode



910 Iridium Helix



Optimising Iridium performance:

Iridium is a line-of-sight Satellite network, conditions that can compromise the quality of the service you may receive include:



- 1. Obstructions** Provide the best satellite view for your antenna by removing all obstructions where possible
- 2. Cabling** Use the shortest cable length and the fewest number of connectors on all Iridium certified antenna cable runs
- 3. RF Interference** Install antenna as far away from other transmitters as possible.

