



## The YB3 Two-Way Messenger is a truly global communication device and tracking system.

It is a lightweight, rugged handheld device which uses the Iridium satellite network to transmit your messages, and your location, from anywhere in the world.

### Features:

- 5-button keypad plus specific 'alert' button
- Bright OLED screen for information display
- Full 2-way communication system
- Over-the-air reconfiguration of key parameters
- USB connection for charging and for data transfer
- Bluetooth connection via the YB Connect App
- Truly Global Operation, using the Iridium satellite network
- Long battery life (over 2500 transmissions on a single charge)

The YB3 tracker is a rugged and fully electrically autonomous battery-operated tracker which works anywhere on Earth.

The tracker is designed to periodically activate (e.g., every 15 minutes), retrieve its position through the GPS satellite network, and swiftly send that location data back to YB Tracking HQ within seconds, leveraging the Iridium satellite network.

The message is relayed to us by Iridium, and we then visualise the positions using an easy-to-navigate web-based viewer.

The YB3 also enables the transmission of concise messages (similar to SMS and short emails) through a connected Bluetooth device, like a smartphone, using the YB Tracking app. This feature ensures seamless two-way communication, irrespective of your location, even when beyond mobile network coverage within seconds.

Iridium is the only satellite network that allows transmission of information from any point on Earth – other networks have no coverage in the polar regions and have intermittent or no coverage in other marine and land areas.

Iridium maintains a constellation of 66 satellites orbiting the Earth, providing continuous coverage 24 hours a day, 7 days a week. No other satellite network offers truly global coverage like Iridium.

Depending on the transmission frequency configured for the YB3, its internal battery can last up to a year.

## Key Functionality

Coupled with our intuitive web-based control panels and mapping:

- » **Position tracking** – the unit will automatically report your position at a preset time interval (e.g. every 15 minutes).
- » **Basic Messaging** – using the keypad and screen, you can choose from hundreds of preset messages to send to mobile phones and e-mail addresses, from wherever you are.
- » **Advanced Messaging** – use your smartphone or Bluetooth enabled tablet to send more complicated free-text messages to email and mobile destinations. Update your twitter, facebook, or other social media status from anywhere in the World.
- » **Alerting** – press the alert button on the device and a message will be sent back to whoever you nominate, with your precise location.
- » **Advanced Alerting** – Countdown timers, proximity alarms and other types of alert are available



### How does the YB3 work?



### Physical Properties

Dimensions	144 x 76 x 36mm (plus antenna)
Weight	305 grams
Screen	Single Colour OLED 26 x 35mm

### Environmental Properties

Storage Temperature	-40 to 85 deg C
Operating Temperature	-30 to 60 deg C
Operating Environment	< 75% Relative Humidity
Testing	MIL-STD-810G for vibration, temperature and shock IP67 - Sealed against dust and water ingress to immersion of 1m

### Power

Input voltage	USB (5v)
Power Consumption	Tx/Rx: 8W Max
Battery	LiPo cells HW925590, 5.3Ah
Power I/O	USB

### Communication

Iridium Modem	9602 short burst transceiver
Iridium Antenna	Maxtena helical antenna
GPS antenna/chip	uBlox GPS chipset

### Battery Life (examples)

Up to 12 months transmitting once per day
Up to 3 months transmitting once per hour
Up to 3 weeks transmitting every 15 minutes

Actual battery life will depend on environment and usage patterns

### GPS

GPS Receiver Type:	50 channel
Update rate:	Up to 4Hz position update rate
Time to first fix:	<1s hot, <20s warm, <60s cold
GPS Sensitivity:	-160dBm



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