

DELORME PowerPack for Earthmate GPS with Bluetooth GPS 9822



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1 Main Features

- ◆ Compatible with Bluetooth devices with Serial Port Profile (SPP)
- ◆ 2 LEDs indicating Bluetooth , GPS activity , Low power and Charge operation
- ◆ On/off slide switch
- ◆ Bridge for 9538 Earthmate and terminal monitor device (PC or PDA or BT device)
- ◆ Powered By Alkaline Battery (AAA) * 4
- ◆ Lithium-ion battery lasting full working day typical use(Optional)
- ◆ Removable belt clip
- ◆ USB output
- ◆ UART output
- ◆ Dimensions: 94.8 mm x 62.5 mm x 41 mm

2 Specifications

2.1 Electrical Characteristics

General

Chipset	CSR
Frequency	2.40~2.48 Ghz
Antenna Type	Built-in Ceramic Chip antenna

Power

Operational Power	3.3VDC±10% (from internal Lithium-Ion battery pack)
Charging Power	5VDC±10%
Battery Source	Rechargeable 1200mAh Lithium-Ion battery with 5V DC input charging circuit
Battery Charging	Full charge 2.5 hours by 650mA adapter
Backup Power	3.3V (internal onboard rechargeable backup battery)
Operational Current	70~80mA (with BT function but not include Earthmate GPS) 0~10 mA(without BT function and not include Earthmate GPS) 80~90mA(Max but not include Earthmate GPS)
Typical Operation	GPS and Bluetooth fully active 6-8 hours

Main Interface

Connection	Bluetooth Serial Port Profile (SPP) * UART * USB
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<Note> : UART and BT can't operate at the same time

2.2 Environmental Characteristics

Humidity range	5% to 95% No condensing
Operating temperature range	-20°C to +70°C (Without using Li-Ion battery)

2.3 Physical Characteristics

Length	94.8 mm
Width	62.5 mm
Height	41 mm
Weight	2.6 oz. / 75g
Power connector	3.5mm

2.4 Certification

Bluetooth	BQB
Europe	CE, CE!
American	FCC Class B, ICES-003 Class B, FCC ID

3 Accessories

3.1 Power

Adapter Adapter is for charging. Supports 110V-220V. Multiple

3.2 Cables (Optional)

USB cable	This cable switches C25 connector to USB connector. The GPS data can be transmitted by USB port.
RS232 DB9 cable	This cable switches C25 connector to RS232 DB9 connector. The GPS data can be transmitted by UART port.
Cables for PDA	These cables can support some PDAs to receive GPS data.

4 Operation



4.1 Hardware Description



The PowerPack for Earthmate GPS with Bluetooth has two LED light which each has two colors. One is GPS & Charge status LED, that is named LED 2, and the other is Bluetooth & low power status LED, that is named LED 1. The status table of LED shows as follows:




<State Table of LED>

LED1

Bluetooth & UART transmitting status	Description	
LED1 Color and Action	Bluetooth Active	UART Active
Blue(Bluetooth status) 	Yes	No
Yellow(UART transmitting status) 	No	Yes

<Note>When you use RS232 DB9 cable to connect PowerPack and enable the UART transmission, Bluetooth function will disable and the LED 1 only shows yellow.

LED2

Lithium Battery Status&Charge LED	Description	
LED2 Color and Action	Battery Charged	Low Powered
Dark 	No	No
Green Solid 	Yes	No
Red 	No	Yes

4.2 Turn on/off

Notice

You have to install the Earthmate GPS receiver to PowerPack device before the PowerPack for Earthmate GPS with

Bluetooth operation.

Turn on

To turn on the receiver, please switch the power slide switch to “ON” side. You can see the LED1 flash blue color once and wait a moment (about 10 seconds) to turn on the power. At the same time LED1 will flash blue to wait Bluetooth connection.

Turn off

To turn off the receiver, please switch the power slide switch to “OFF” side. You can see the all LED dark.

4.3 Charging

Low Power

The left LED(LED 2) indicator will show red when Lithium-Ion battery power becomes low.

Charging

The left LED(LED 2) indicator will turn green when the battery is being charged. When fully charged, the green indicator will switch off.

4.4 Bluetooth Communication

Waiting to connect

The right LED(LED 1) indicator will flash if there is no communication between the receiver and another device.

Connected

The right LED(LED 1) indicator will turn to continuous lighting when the receiver is connected through the wireless link with another device.

4.6 PIN CODE

The **PIN** code means Personal Identification Number for Bluetooth device. The Bluetooth GPS receiver has the default PIN Code, and is “0000”. Generally speaking, there are two steps in Bluetooth connecting. One is pairing process, the other is link process. If you need PIN code to pairing and connect, you can use the default pin code, “0000” to connect Bluetooth device. Our GPS receiver belongs to non-safety connecting, you can use in general application to finish connecting.

5. Notices

5.1 Global Positioning System

The Global Positioning System (GPS) is operated and maintained by the Government of the United States of America who are responsible for the availability and the accuracy of the system. Changes in the operation, availability and accuracy may affect the operation of your GPS receiver.

5.2 Aircraft and Hospitals

Use of devices with an antenna is prohibited on most aircraft and in many hospitals. The Delorme Powerpack for Earthmate GPS with Bluetooth is a receiving and transmitting device with two antenna's and should not be used in these environments.

5.3 Heat Reflective Shields

Modern vehicles may have a heat reflective shield in the windshield, preventing proper GPS signal reception if the receiver is placed under the windshield. To get proper reception:

- (a) Use an external antenna, or
- (b) Place the receiver in a different position, or
- (c) Attach the cradle to the windshield behind the rearview mirror, where many vehicles have an opening in the heat reflective shield, indicated by a black outline.

5.4 Important

The information in this document is subject to change without notice. No liability shall be assumed for technical or editorial errors or omissions contained herein; nor for incidental or consequential damages resulting from the performance or use of this material. This document contains information protected by copyright.

5.5 Battery

This product uses a Lithium-Ion battery. Please charge fully before first use. Operation in low (below 00 C/320F) or high (over 400C/1100F) temperatures will affect power supply efficiency and the ability to charge the battery. All Lithium-Ion batteries will experience power supply efficiency deterioration over time even if not used and have a limited life expectancy. Permanently powering the battery will reduce life expectancy. Do not use your product in a humid, wet and/or corrosive environment. Do not put, store or leave your product in or near a heat source or in a high temperature location and do not expose it to temperature over 600C(1400F). Failure to follow these guidelines may cause the Lithium-Ion battery to become hot, explode or ignite and cause injury and/or damage. **THE LITHIUM-ION BATTERY CONTAINED IN THE PRODUCT MUST BE RECYCLED OR DISPOSED OF PROPERLY. USE ONLY WITH SUPPLIED CHARGER(S) AND SUPPLIED AC ADAPTOR FOR BATTERY CHARGING.**

5.6 FCC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded interface cables must be used in order to comply with emission limits.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

CAUTION

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.