

UltiMate GPS

for iPod touch, iPhone and iPad

ACCESSORY USER GUIDE



UltiMate GPS

Overview

Your UltiMate GPS accessory adds state-of-the art GPS capabilities to your iPod touch, iPhone or iPad. Your UltiMate GPS is designed to be compatible with all third party location-based applications available on the App Store.

Emprum's UltiMate GPS App (available on the App Store) is an application with which you can interact with your UltiMate GPS accessory. Please refer to the UltiMate GPS App user guide for more details. User guides are available online from www.emprum.com.

What's in the box?

- UltiMate GPS accessory
- USB cable
- Quick Start Guide

Getting started


- Install Emprum's UltiMate GPS App from the App Store, or install any other location-based application from the App Store that you wish to use.
- Plug your UltiMate GPS into your iPod touch, iPhone or iPad (further referred to as iPod).
- Start up Emprum's UltiMate GPS App (refer to the UltiMate GPS App user guide for details), or start up your own preferred location-based application from the App Store.
- Wait for your UltiMate GPS to obtain a satellite lock (see page 7). Once a lock is obtained, you are ready to use your UltiMate GPS.
- Optionally, you can use the supplied USB cable to power your iPod through the UltiMate GPS accessory: simply plug one end of the USB cable into your UltiMate GPS and the other end into a USB port on your computer, or into an iPod compatible wall/car charger.¹

¹ Always make sure to press the release button on the USB cable when connecting/disconnecting the cable from your UltiMate GPS.

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Interpreting the LED indicators on your UltiMate GPS

There are two colored LED indicators on your UltiMate GPS accessory.

The first indicator is the LED satellite icon  which shows the status of the GPS engine inside your UltiMate GPS accessory. Its colors can be:

- **Blue:** the GPS engine is ready to communicate.
- **Flashing red:** the GPS engine has not acquired a satellite lock yet. Once a satellite lock has been obtained the red LED will stop flashing.


The second indicator is the LED power icon  which indicates the operational mode of your UltiMate GPS accessory. Its colors can be:

- **Orange:** when the accessory is attached to the iPod, this LED will briefly flash twice and light solidly after the accessory is successfully recognized by the iPod.
- **Green:** the UltiMate GPS is powered from USB and charging its battery.
- **Yellow:** a combination of the above two modes.

Charging the internal battery

Your UltiMate GPS has an internal battery that will keep the most recently acquired GPS satellite information stored in memory, enabling faster satellite lock times.

For optimum internal battery life and performance, the internal battery should be charged overnight (12–16 hours) before first use of the accessory.

To charge your internal battery, plug one end of the supplied USB cable into your UltiMate GPS and the other end into a USB port on your computer or into a USB charger¹. The LED power icon  on your UltiMate GPS will now light green (or yellow if your UltiMate GPS is simultaneously plugged into your iPod) indicating that the accessory is USB powered and charging its internal battery.

¹ Always make sure to press the release button on the USB cable when connecting/disconnecting the cable from your UltiMate GPS.

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Keeping the internal battery charged

When fully charged, the internal battery will store satellite data and user settings for a period of 30 days of non-use of the accessory.


Regular use of your UltiMate GPS will ensure that the internal battery remains charged.

An easy way to make sure the internal battery stays charged is by using the UltiMate GPS accessory with the supplied USB cable to charge your iPod when it needs charging. The internal battery will then be charged simultaneously while your iPod is charging.

If you notice an increase in satellite lock times, this can indicate that the internal battery is insufficiently charged. In this case, please follow the first-time-use charging instructions as outlined on page 5.

Acquiring a satellite lock for the very first time

When you initially receive your UltiMate GPS, the internal battery is discharged and should first be charged according to the instructions on page 5. As your UltiMate GPS has no satellite data available upon first use, the accessory will need to search for satellites without having any prior knowledge of where the satellites are in the sky. This process can take anywhere from 35 seconds up to several minutes, depending on your location, surroundings and sky conditions.

If the LED satellite icon  on your UltiMate GPS continues to flash red for a long time without obtaining a lock, take your accessory and iPod outside to a clear and open area. Place your iPod on a flat surface with its screen facing down such that the GPS antenna of your UltiMate GPS accessory faces the sky. Next wait for a satellite lock. Stay away from enclosed areas, trees and large concrete buildings as these can obstruct the GPS satellite signal from the sky.

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GPS lock times

Getting a satellite lock by GPS receivers on the ground usually takes some time, especially when the receiver is in a moving vehicle or in dense urban areas. The initial time needed for a GPS lock is usually dependent on how the GPS receiver starts. There are three types of starts: hot, warm and cold.

Hot start — For a hot start, the GPS receiver remembers its last calculated position, the satellites in view, the almanac used (the almanac contains information about all the satellites in the constellation), the coordinated universal time (UTC), and then makes an attempt to lock onto the same satellites and calculates a new position based upon the previous information. This is the quickest GPS lock, but it only works if you are generally in the same location as you were when the GPS receiver was last turned off. For your UltiMate GPS accessory, the typical time-to-first-fix (TTFF) for a hot start is < 1 second under clear and open sky conditions.

Warm start — For a warm start, the GPS receiver remembers its last calculated position, the almanac used, and the UTC, but not which satellites were in view. It then performs a reset and attempts to obtain new satellite signals and then calculates a new position. The receiver has a general idea of which satellites to look for because it knows its last position, and the almanac data helps identify which satellites are visible in the sky. This takes longer than a hot start but not as long as a cold start. For your UltiMate GPS accessory, the typical time-to-first-fix (TTFF) for a warm start is < 30 seconds under clear and open sky conditions.

Cold start — For a cold start, the GPS receiver discards all current information, attempts to locate satellites and then calculates a new position. This takes the longest because there is no known information available. For your UltiMate GPS accessory, the typical time-to-first-fix (TTFF) for a cold start is < 35 seconds under clear and open sky conditions.

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Charging and syncing

When your UltiMate GPS is connected to your iPod and your computer with the included USB cable, you may charge and sync your iPod as usual.

Power consumption

Your UltiMate GPS consumes power from your iPod and as such can impact battery life. It is therefore recommended that you fully close any location-based applications that you are no longer using. Alternatively, you can connect your accessory to a wall/car charger whenever available.

Questions and support

For support, frequently asked questions, detailed user manuals, drivers and product updates, please visit us online at www.emprum.com or email support@emprum.com.

Emprum's business philosophy

Success of a business is not only determined by the quality of its products and services. The impact of the business on the environment and the well-being of the planet and its people is equally important.

Emprum's business philosophy is aimed at having a positive impact on our environment by going "green, lean and clean," and to inspire and uplift global consciousness and awareness toward fellow human beings by including a humanitarian cause in its course of business.



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Our "green, lean and clean" philosophy

-  **Our products are RoHS compliant**
-  **Our product manuals are online**
-  **Recycle with us!**

Our products are green,
our packaging is lean,
and above all,
we like to keep the environment clean!

Addendum

UltiMate GPS accessory and software

Emprum LLC assumes no responsibility, nor shall be held liable for any incidental or consequential damages resulting from the use of this product.

Warranty

For support and warranty details, please visit www.empum.com.

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