User's Manual

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OVERVIEW

With the GPS Smart Antenna, your Pocket PC handheld, or laptop computer combined with your favorite mapping software, you will always have maps and directions wherever you go! It's a terrific tool or gift for business travelers, sales reps, field engineers/technicians, real estate agents, insurance agents or anyone who likes to know their "way".

GPS Receiver is a complete GPS smart antenna receiver. The embedded patch antenna and GPS receiver circuits allows the ultimate compatibility in operation. The GPS Receiver tracks up to 12 satellites at a time while providing fast Time-To-First-Fix (TTFF), per second update on navigation information and ultra low power consumption. Its high sensitivity and prolonged operation range make it ideal for car navigation as well as other location-based services and applications.

Features

- Builds on the ultra low power consumption and high sensitivity chipset with customized applications in firmware.
- 12 parallel satellite-tracking channels for fast acquisition and reacquisition.
- Low power consumption.
- 8 Megabits of Flash Memory built in for fast acquisition times.
- Support NMEA0183 v2.2 data protocol.
- Enhanced algorithms provide superior navigation performance in urban, canyon and foliage environments.
- For Car Navigation, Marine Navigation, Fleet Management, AVL and Location-Based Services, Auto Pilot, Personal Navigation or touring devices, Tracking devices/systems and Mapping devices application.

Package Contents

USB Version
GPS Receiver unit (USB Connector) x 1
User's Manual x1
Product CD (USB Driver + GPS Analyzer) x 1

PS/2 Version
GPS Receiver unit (PS2 Connector) x 1
PS2 to PDA Connector (Variable) x 1
User's Manual x1

OVERVIEW

System Requirements:

For PC

Operating Systems: Windows 98/ME/2000/XP

Hardware Requirements: In compliance with the system requirement of the above mentioned operating systems.

For Pocket PC

1.WinCE :

1.1 CPU : X86, ARM

1.2 OS : 3.0, 4.0 ,4.1 , 4.2

2. Palm

3. Pocket PC 2002/2003

For PC

USB Driver Installation

For PC

A. Installing the GPS Receiver

1. Insert the included “GPS Receiver” CD into your CD/DVD ROM drive.

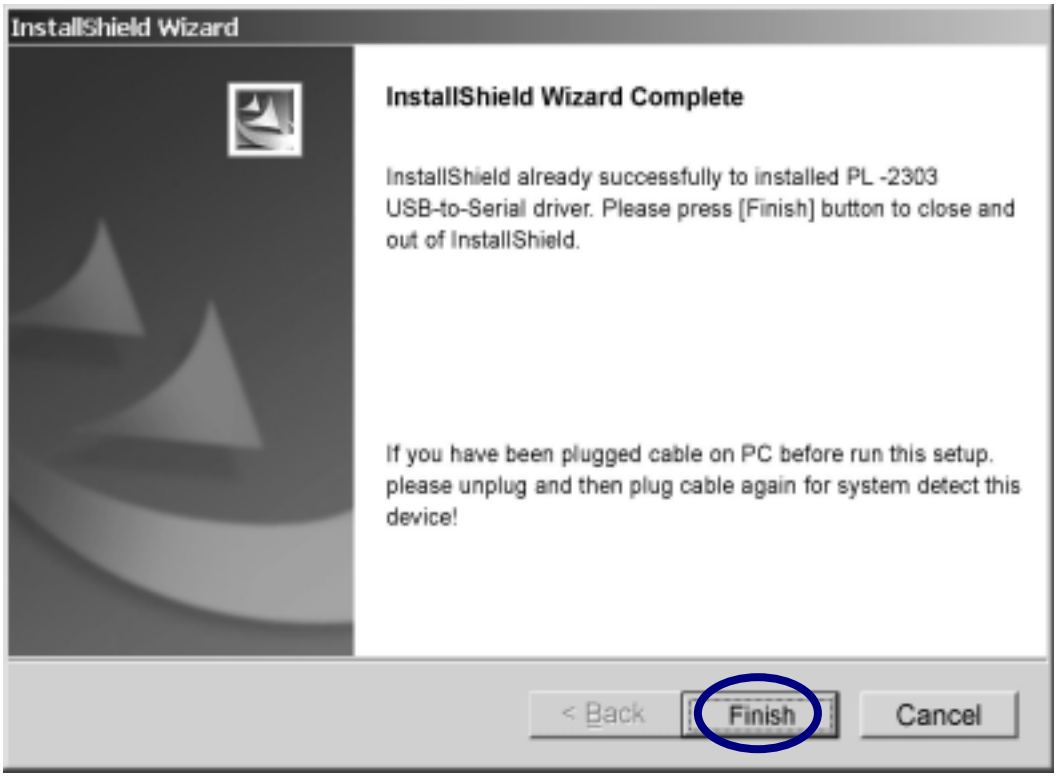
2. Wait for the welcome screen to pop up.

Note: If your computer does not have “auto-run” enabled, open “my computer”, select the drive containing the CD, and double click “GPS Package.exe”.

3. To install the USB driver, click the “USB Driver Installation” tab.

4. Click “Next >”, and follow the on-screen instruction to install the USB driver for your GPS receiver.

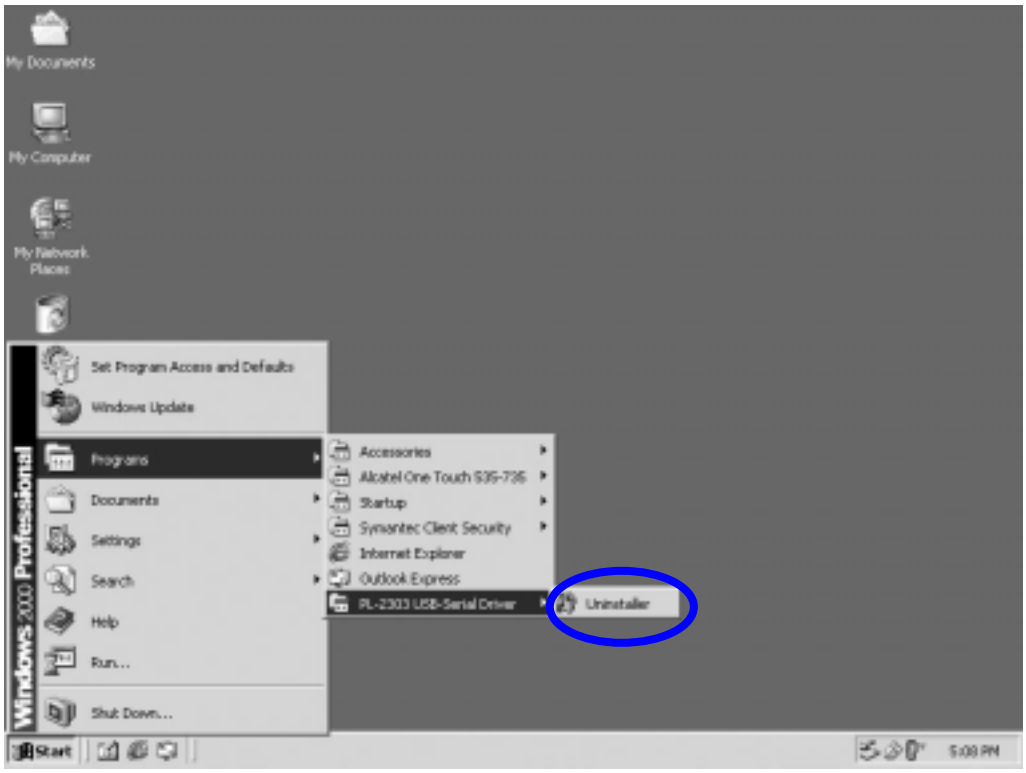
5. Wait until Setup has finished installing the GPS USB Driver Click “finish” to end.



If you have plugged in your GPS receiver on PC before running this setup, please unplug and then re-plug the GPS receiver for the system to detect this device.

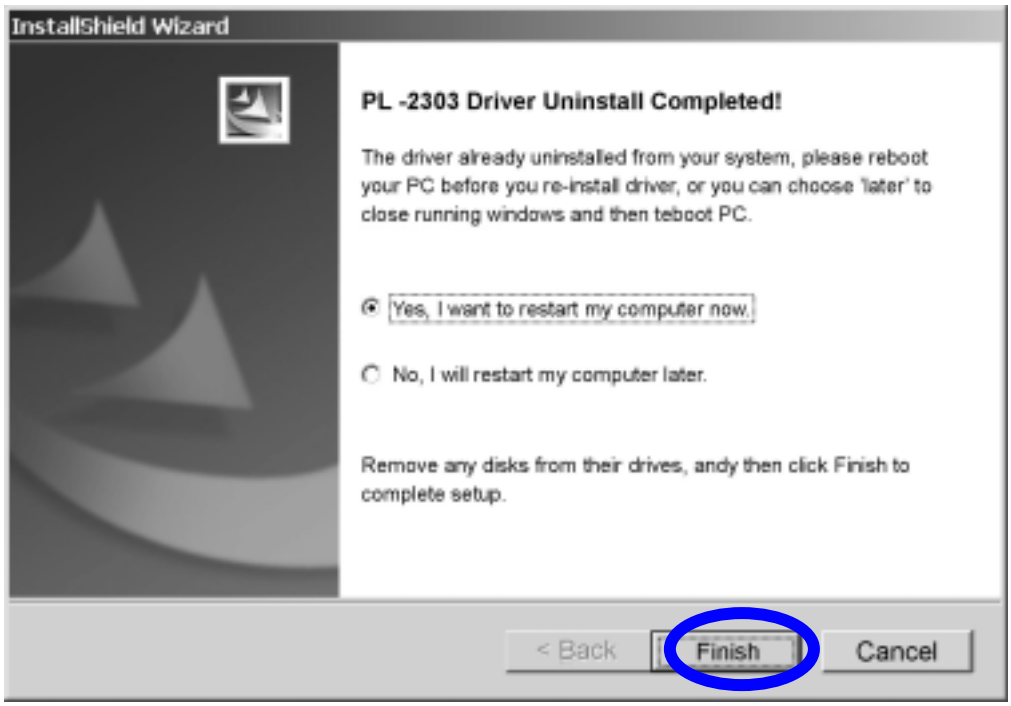
B. Uninstalling the Device

1. Click “Start＞Programs＞USB to Serial＞Uninstaller”.



2. Uninstall Completed

After Setup has completely uninstalled the driver and programs, it will prompt you to restart Windows. It is recommended that you restart your computer.

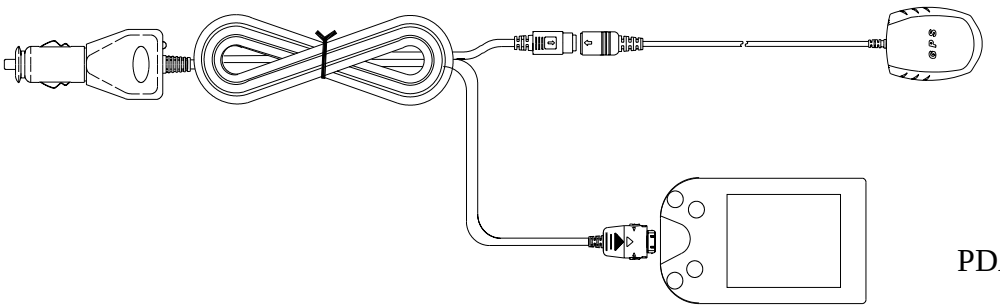


Hardware Installation

USB Connector

Hardware Installation

Cigarette
Charger



PDA

A1 - Technical Specification

Appendix

Satellite Tracking	12 Parallel channels
RF input	Center frequency 1575.42MHz L1 band, C/A code
Characteristics impedance	50 ohm
Signal sensitivity	-145 dBm or less
Positioning system	Default WGS-84
Positioning accuracy	Position 10m CEP(50%)
Velocity	0.2m/s (50%)
Positioning condition	A) DOP limit: 3D: PDOP < 12 2D: HDOP < 6 B) Elevation mask: 5°
Follow-up performance	Acceleration 4g
Navigation Update Rate	1second(Default)
Navigation method	All-In-View solution
Operation Temperature	－10℃ to 70℃
Storage Temperature	－40℃ to 95℃

Time To First Fix (TTFF)

Assumes previously listed navigation conditions and 8 satellites in view

TTFF	Typ	Units
Hot Start (time, position, valid ephemeris, and valid almanac)	12	seconds
Warm Start (time, position, no ephemeris, and valid almanac)	35	seconds
Cold Start (time, position, no ephemeris, and valid almanac)	50	seconds

The G-mouse has to establish location fix before accurate time information can be provided.

Interface

I/O connector (Power supply, serial data)	USB/PS2

Communication Specification

Communication method	Start-stop synchronization
Transfer rate input/output	4800bps NMEA 0183
Logic levels	TTL
I/O code	ASCII
Communication format	NMEA 0183

A2 - Communication Regulation Information

Appendix

FCC Declaration of Conformity

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. See instructions if interference to radio or television reception is suspected.

Radio and Television Interference

The equipment described in this manual generates, uses, and can radiate radio-frequency energy. If it is not installed and used properly-that is, in strict accordance with these instructions-it may cause interference with radio and television reception.

This equipment has been tested and found to comply with the limits for a Class B digital device in accordance with the specifications in Part 15 of FCC rules. These specifications are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation.

You can determine whether your computer system is causing interference by turning it off. If the interference stops, it was probably caused by the computer or one of the peripheral devices.

Exposure to Radio Frequency Energy

The radiated output power of the GPS receiver unit is far below the FCC radio frequency exposure limits. Nevertheless, it is advised to use the wireless equipment in such a manner that the potential for human contact during normal operation is minimized.

A3 - GPS Analyzer

Appendix

1. Insert your GPS Analyzer CD included in the package of the USB version GPS Receiver.

2. Wait for the welcome screen to pop up.

Note: If your computer does not have "auto-run" enabled, open "my computer", select the drive containing the CD, and double click "GPS Package.exe".

3. Click the "GPS Analyzer" tab.

4. On the pop up manual, select "auto" or "manual" for GPS Receiver detection.

5. If you selected "auto", the program will try to detect your plugged GPS receiver's comport and display the result in the GPS analyzer program.

6. If you selected "manual", the program will allow the user to select their own comport that the GPS receiver is connected to.

7. In either mode, if the comport is not detected or entered incorrectly, you will be provided with a warning screen, and brought back to step 4.

8. Upon error detection, please make sure your GPS receiver is plugged in properly, and the driver for your USB Receiver is installed correctly.