

GlobeTrotter Express 7.2 User Guide

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GE020xUG-01

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Welcome

GlobeTrotter Express 7.2

The GlobeTrotter Express 7.2 is the next generation of wireless data card designed by Option to be compatible with 3G networks supporting the higher data rates of up to 7.2 Mbps using HSDPA technology.

Your GlobeTrotter Express 7.2 includes Advanced Receiver Technology (ART) bringing the benefit of Receive Diversity and Receive Equalization. These technologies are essential for maximizing the range and speed of HSDPA 3.6/7.2. Backward compatibility ensures HSDPA operation at 1.8 Mbps and UMTS operation at 384 kbps is still possible.

For when 3G services are not available in your area the GlobeTrotter Express has in-built support for Quad-band EDGE and GPRS giving speeds up to 247 kbps.

Features

- Worldwide coverage through triple-band HSDPA/UMTS and quad-band EDGE/GSM
- Advanced Receiver Technology incorporating Receiver Diversity and Equalization
- Patented Zero-CD Plug 'n' Play technology
- HSDPA and UMTS High-speed data (up to 7.2 Mbps) connectivity for mobile users
- EDGE/GPRS/GSM data (up to 247 kbps) connectivity
- Transparent handover between UMTS and GSM/E-GPRS networks
- Compatible with nearly all popular notebook PCs equipped with ExpressCard34 slot and Microsoft Windows/Mac OS X operating system
- Transparent support for IPSec and VPN technology.

System Requirements

A computer loaded with an Operating System that is Windows 2000, XP, Vista or Mac OS X and has been fitted with a Cardbus compatible PC-Card interface.

Installation and Operation

Please refer to the Quick Install Guide for details.

Principle of operation

To connect to the Internet you need a SIM and an account from your network operator that allows Internet access.

Fitting the SIM, inserting the card into your laptop and deploying the antenna is all that is required to get the card working. If the SIM requires a PIN code then the application controlling the datacard will ask for the PIN. The datacard then searches for your

operators network and register on it. You can monitor the status of the datacard by looking at the LEDs. Use the application provided with the card to connect to the Internet.

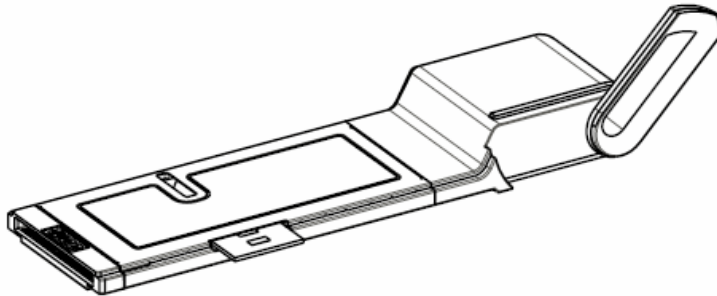
As you change location or the amount of traffic on the network changes you may see that the LED switches between **RED** and **BLUE**, this tells you that the card has switched between 2G and 3G technology. This is normal and happens automatically, according to the rules broadcast by the network. Your connection to the Internet should continue but of course the speed of operation will change.

To disconnect from the Internet you use the application provided.

To remove the card from its slot you should use the safe removal procedure detailed later in this manual.

Adjusting the antenna

The GlobeTrotter Express 7.2 is equipped with a foldout antenna. For best operation the antenna should be used as shown in this picture:



LED Status

The LEDs on the datacard provide a lot of information. How they flash will tell you what is going on.


Red LED ☼ – GSM/EDGE (2G)

Blue LED ☼ – UMTS/HSDPA (3G)

LED flashing	Meaning	Notes
☼. ☼. ☼. ☼. ☼. ☼.	Unregistered. Searching for a network.	Both LEDs flash at the same time giving a purple colour.
☼.. ☼.. ☼..	Registered on a 3G network	SMS possible. No access to the Internet
☼☼.. ☼☼.. ☼☼..	Connected or Ready for connection to the Internet on a 3G (UMTS) network. (Circuit Switch Attached)	If connected – this is a UMTS connection.
☼☼☼☼.. ☼☼☼☼.. ☼☼☼☼..	Connected to the Internet	This is an HSDPA connection
☼.. ☼.. ☼..	Registered on a 2G (GSM) network	SMS possible. No access to the Internet
☼☼.. ☼☼.. ☼☼..	Connected or Ready for connection to the Internet on a 2G network. (Circuit Switch Attached)	If connected – this is a GPRS connection.
☼☼☼☼.. ☼☼☼☼.. ☼☼☼☼..	Connected or Ready for connection to the internet on a 2G network.	If connected – this is a EDGE connection.
☼☼☼☼☼☼..	A problem occurred	Eject the card safely and try again

Safe removal

Before ejecting the card, always tell Windows that you want to remove the card first. Use

the “Safely Remove Hardware” icon  in the system tray. If you do not do this you may cause the system to crash.

Trouble Shooting

If you are having trouble getting a reliable connection please check with your network provider for advice on network coverage in your area. Other characteristics such as network cell handover, dead coverage spots, geographic or structural obstructions, etc. may also affect the performance of the data transmission.

Common Problems

Symptom	Possible cause	Possible Solution
No LEDs flashing on the card	The PC-Card slot is not powered	Check for the latest computer BIOS and Cardbus interface drivers from you laptop manufacturer.
Both Red and Blue LEDs continue flashing together. (Unregistered state)	No signal detected	Make sure the antenna is extended. Try moving to another location, say nearer a window.
Both Red and Blue LEDs continue flashing together. (Unregistered state)	No SIM fitted SIM is not fitted correctly	(Re)Fit the SIM correctly.
Both Red and Blue LEDs continue flashing together. (Unregistered state)	SIM disabled by network operator	Contact your network operator for a replacement SIM
Both Red and Blue LEDs continue flashing together. (Unregistered state)	Manual registration on to a non-existent network. (Only applicable if your communication software allows it)	Set registration back to automatic selection.
Both Red and Blue LEDs continue flashing together. (Unregistered state)	Manual adjustment of bands of operation to bands not available in your area. (Only applicable if your communication software allows it)	Set band selection back to default or recommended settings.
Double Red or Blue LED flash but card fails to connect	The APN is not correct	Check the settings against what your network operator recommends for Internet access.
Double Red or Blue LED flash but card fails to connect	You are operating in a foreign country and the network your card is registered on does not allow a data link with your network operator.	Manually select a network for the datacard to register on that you know offers data services with your network operator. (Only applicable if your communication software allows it)
Your communication software cannot detect the datacard.	Faulty driver installation	Remove any previously installed communication software. Remove any other drivers for datacards. Re-install the datacard
Your communication software cannot detect the datacard.	Conflict with other devices.	Possible conflict with Bluetooth adapter. Uninstall the Bluetooth adapter drivers. Install the datacard and then re-install the Bluetooth adapter.
Your communication software cannot detect the datacard.	Conflict with other programs.	Disable or remove any other communication program that might connect with the datacard.

Technical Support

Questions and answers regarding this device can be found on our Support website: <http://support.option.com/support/faq.php>.

After registration, technical questions can be posted via our online

Support Web on: <http://support.option.com/support/newticket.php>

For registration please go to: <http://support.option.com/support/register.php>

Specifications

- HSDPA/UMTS Air Interface:
 - Triple-band WCDMA 850/1900/2100 MHz
 - Dual antenna Receiver Diversity
 - EMEA variant supporting diversity on 2100 MHz
 - NAR variant supporting diversity on 850 and 1900 MHz
 - 3GPP FDD compliant, up to 7.2 Mbps Peak Rate
 - UE Power Class 3
 - Receiver Equalisation
- EDGE/GSM Air Interface:
 - Quad-band 850/900/1800/1900 MHz
 - EDGE Power Class E2, GSM Power Class 1 at 1800/1900 MHz and Power Class 4 at 850/900 MHz; coding scheme UL & DL – CS 1-4, MCS 1-9
 - Multislot (E)GPRS Class 12, (E)GPRS Class B Type 1 MT
- Terminal Equipment Interfaces:
 - Drivers: Windows™ 2000 Pro, Personal and XP Pro/Home, Vista and MAC OS X.

Hardware specifications

- Card Type: ExpressCard/34 compliant.
- Miniature External Antenna Connection,
- Red LED for GSM/GPRS/EDGE and blue LED for HSDPA/UMTS
- SIM card interface compliant with 3GPP 31.101 and 31.102 supporting 1.8 and 3V UICCs
- Environmental Operating temperature: 0 to +55°C
- RoHS Compliant

Operating conditions

This device is designed for use in a typical office or home environment. Follow these guidelines for trouble free operation:

- Do not expose this device to extreme temperatures such as found near a hot radiator or stove or in a car parked in the sun.
- Do not expose this device to extreme cold temperature such as a car parked outdoors in winter.
- Do not expose this device to water and moisture.

Health and Safety

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- To prevent possible interference with aircraft systems, safety regulations require you to have permission from a crewmember to use this device while the plane is on the ground. You must not use this device while the plane is in the air.
- This device may cause interference to some implanted cardiac pacemakers, equipment for people with hearing impairments and all other implanted medical equipment.
- Do not use this device in a potentially explosive atmosphere.
- Do not attempt to disassemble this device. Doing so will void the warranty. Service should only be performed by Authorized Service Centers.
- The antenna used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- This transmitter is restricted for use with following external antenna's:
 - Radiall/Larsen EPA 04-064
 - Telsa T01111934

Appendix A: Limited Warranty

HARDWARE: Option warrants its products to be free from defects in workmanship and materials, under normal use and service, for one year. If a product does not operate as warranted during the applicable warranty period, Option shall, at its option and expense, repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item. All products replaced will become property of Option. Replacement products may be new or reconditioned. Option shall not be responsible for any software, firmware, information or memory data of Customer contained in, stored on, or integrated with any products returned to Option pursuant to any warranty.

SOFTWARE: Option warrants that the software programs licensed from it will perform in substantial conformance to the program specifications therefore for a period of ninety (90) days from the date of purchase from Option or its Authorized Reseller. Option warrants the magnetic media containing software against failure during the warranty period. No updates are provided. Option's sole responsibility hereunder shall be (at Option's discretion) to replace any defective media with software, which substantially conforms to Option's applicable published specifications. Customer assumes responsibility for the selection of the appropriate applications program and associated reference materials. Option makes no warranty that its products will work in combination with any hardware or applications software products provided by third parties, that the operation of the software products will be uninterrupted or error-free, or that all defects in the products will be corrected. For any third-party products listed in the Option software product documentation or specifications as being compatible, Option will make reasonable efforts to provide compatibility, except where the non-compatibility is caused by a "bug" or defect in the third party's product.

STANDARD WARRANTY SERVICE: Standard warranty service for hardware products may be obtained by delivering the defective product, accompanied by a copy of the dated proof of purchase, to Option's Corporate Service Center or to an Authorized Option Reseller during the applicable warranty period. Standard warranty service for software products may be obtained by calling Option's Corporate Service Center or an Authorized Reseller, within the warranty period. Products returned to Option's Corporate Service Center must be pre-authorized by Option with a Return Material Authorization (RMA) number marked on the outside of the package, and sent prepared, insured, and packaged appropriately for safe shipment. The repaired or replaced item will be shipped to Customer, at his own expense, not later than thirty (30) days after receipt by Option.

WARRANTIES EXCLUSIVE: if an Option product does not operate as warranted above, customer's sole remedy shall be repair or replacement, at Option's option. The foregoing warranties and remedies are exclusive and are in lieu of all other warranties, express or implied, either in fact or by operation of law, statutory or otherwise, including warranties of merchantability and fitness for a particular purpose. Option neither assumes nor authorizes any person to assume for it any other liability in connection with the sale, installation, maintenance or use of its products. Option shall not be liable under this warranty if its testing and examination disclose that the alleged defect in the product does not exist or was caused by Customer's or any third person's misuse, neglect, improper installation or testing, unauthorized attempts to repair, or any other cause beyond the range of intended use, or by accident, fire or other hazard.

LIMITATION OF LIABILITY: in no event, whether based in contract or tort (including negligence) shall Option be liable for incidental, consequential, indirect, special or punitive damages of any kind, or for loss of revenue, loss of business, or other financial loss arising out of or in connection with the sale, installation, maintenance, use, performance, failure, or interruption of its products, even if Option or its Authorized Reseller has been advised of the possibility of such damages.