

Option GlobeTrotter Express HSUPA and GT MAX HSUPA User Guide

Version 1.0



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Datacard User Guide

Datacard User Guide for GlobeTrotter Express HSUPA and GlobeTrotter GT MAX HSUPA

1. WELCOME

Thank you for choosing Option.

Your datacard is the latest designed by Option to be compatible with 3G networks supporting the new HSUPA upload technology at speeds of up to 2Mbps combined with download speeds up to 7.2 Mbps using HSDPA technology. It includes Advanced Receiver Technology (ART) bringing the benefit of Receive Diversity and Receive Equalization. Both technologies are essential for getting maximum performance in today's hostile radio environment.

Backward compatibility ensures HSDPA connections at lower data rates of 3.6 Mbps and 1.8 Mbps. When 3G services are not available in your area, your datacard has built-in support for quad-band EDGE and GPRS giving speeds up to 247 Kbps.

2. FEATURES

- Worldwide coverage through triple-band HSUPA/HSDPA/UMTS and quad-band EDGE/GSM
- Bands supported: HSUPA/HSDPA/UMTS on 2100/1900/850 and EDGE/GPRS on 1900/1800/900/850 bands
- Advanced Receiver Technology incorporating Receiver Diversity and Equalization
- Zero-CD™ Plug 'n Play technology
- High speed HSUPA uploads with data rates to 2 Mbs (network dependent).
- Provides high speed downloads, HSDPA (up to 7.2 Mbps) and UMTS (384 kbps)
- Provides EDGE/GPRS/GSM data (up to 247 Kbps) connectivity when 3G is not available
- Supplied with GlobeTrotter Connect and GlobeTrotter Connect for MAC OS connection tools
- Securely access corporate resources with its transparent support for IPSec and VPN technology

- Supports 3rd-party applications that provide Video Telephony (3GPP 3G-324M, H.324, H264 Baseline Video), SIP, SMS, IM, MMS, Internet and e-mail
- Comprehensively tested on infrastructures and networks worldwide
- Future proofing through Flash Memory technology

3. SYSTEM REQUIREMENTS

- Windows® 2000 / XP Home / XP Pro / Vista or MAC OS X
- Laptop with ExpressCard / 34 slot (GlobeTrotter Express HSUPA)
or
- Laptop with Cardbus slot (GT MAX HSUPA)
- Free hard disk space < 2 Mbytes

4. INSTALLATION AND OPERATION

Please refer to the Quick Start Guide for details.

5. 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 operator's network and registers 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 (page 8).

6. 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.	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.	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.

7. 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.

8. REPLACING THE ANTENNA – GT MAX HSUPA

The antenna is designed to detach from the card if excessive force is applied to it. To replace the antenna gently push the antenna back in to its recess until you feel it click back into place.

9. REPLACING THE ANTENNA – GLOBETROTTER EXPRESS HSUPA

The antenna is designed to detach from the card if excessive force is applied to it. To refit the antenna, place it back in its socket and squeeze the antenna and datacard, as shown in the picture below, until you feel it click.



10. TROUBLESHOOTING

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.

SYMPTOM	POSSIBLE CAUSE	POSSIBLE SOLUTION
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.

11. 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 website on:

<http://support.option.com/support/newticket.php>

For registration please go to:

<http://support.option.com/support/register.php>

12. 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

13. HARDWARE SPECIFICATIONS

- Card Type:
GlobeTrotter Express HSUPA: ExpressCard / 34
GlobeTrotter GT MAX HSUPA: Cardbus 3.3V
- Miniature External Antenna Connection (M-card)
- 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

14. 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.

GlobeTrotter Connect

User Guide

1. SYSTEM REQUIREMENTS

Windows® 2000, XP, Vista
5Mb free hard disk space

2. PRODUCT FEATURES

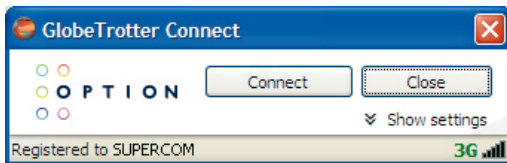
- Easy installation
- Simple intuitive user interface
- Compatible with most modern desktop and laptop PC's equipped with Microsoft Windows® 2000, XP, Vista

3. SHORT DESCRIPTION AND INTENDED USE

The GlobeTrotter Connect application is a small, easy to use tool to manage your connection to the Internet over 2G and 3G mobile networks. It is designed for use with all of Option's data products.

3.1. Basic Use

The focus is on simplicity and most users will use it only in basic mode, where it displays a window with network information and a Connect button. The main purpose is therefore simply to Connect/Disconnect to and from the Internet.



• Figure 1: GlobeTrotter Connect For Basic View

Note: Some versions of GT Connect contain an SMS module. In this case the Close button says 'SMS Centre'.

4. INSTALLING AND SETTING UP GLOBETROTTER CONNECT

4.1. Installation

GlobeTrotter Connect can be installed in several ways:

1. You can install it from a CD if provided.
Browse on the CD-ROM and look for **setup.exe**.
Double click it to start the installation. The following screen appears.



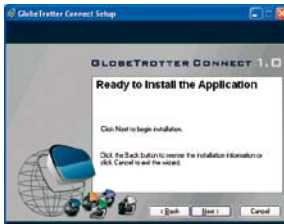
• Figure 2: GlobeTrotter Connect Installation Wizard

Click “Next” to continue the installation and use the Browse button to specify the folder where you want to have the software installed.



• Figure 3: Specify installation folder

The GlobeTrotter Connect application is now ready for installation. Click “Next” and the actual installation will start.



• Figure 4: GlobeTrotter Connect ready to Install

After GlobeTrotter Connect is installed, the following screen will be shown. Click “Finish” to close the installation wizard.



• Figure 5: Successfully installed GlobeTrotter Connect

2. Download it free from <http://www.option.com/support/login.shtml> and run the installation file. Follow the same procedure as described in 1.
3. If your Option data product is equipped with Zero-CD™ technology the application is installed as soon as you connect the product for the first time. For a short time the ZeroCD icon will be visible in Explorer.



• Figure 6: ZeroCD drive

4.2. Installation process

The installation process is straightforward. You will see the following screen appear.



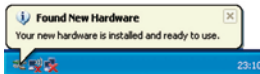
• Figure 7: GlobeTrotter Connect Installation Screen

Wait until the process is completed. You will see the following screen to indicate that the software has been installed.



• Figure 8: GlobeTrotter Connect Installation Completed

In the mean time, you will see various balloons appear indicating the installation process of your Option device. Wait until the following balloon to indicate that the process has finished.



• Figure 9: Found New Hardware Balloon

4.3. Running GlobeTrotter Connect

As soon as you plug in a compatible communications device (Card, USB device...). GlobeTrotter Connect shows up in the Systray.



• Figure 10: GlobeTrotter Connect icon

GlobeTrotter Connect is now ready to make a connection. Don't forget that apart from the software the Option communications device also needs to be ready. E.g. you can't use the device while it isn't registered to the network or if the PIN code hasn't been entered yet.

4.4. Entering your PIN code

If you have enabled the PIN code on your SIM card you will automatically be asked to type it in. If enabled you won't be able to use your data device until you have typed in the PIN code. This will happen every time you power up the device.



• Figure 11: Pin Code Dialog

4.5. Checking Status

Once the PIN code is entered (or immediately if you have disabled the PIN code) the device will look for the network. You can check the status by moving your mouse pointer over the GlobeTrotter Connect icon to get a quick status report showing the network name, technology being used and the signal quality:



• Figure 12: Network Information Balloon

If GlobeTrotter Connect is opened, you can see the signal strength immediately in the lower right corner. If you need to know the signal strength more accurately (e.g. in fringe areas you may want to determine the location where you have the best reception) double-click on the signal strength indicator to see an enlarged view of the signal strength indicator.



• Figure 13: Signal Strength Indicator

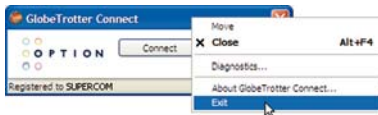
The indicator next to the signal strength shows 3G if you have a 3G coverage. Once you have a connection the indicator shows HS if an HSDPA (HS) connection was established.



• Figure 14: Enlarged Signal Strength Indicator

4.6. Exit GlobeTrotter Connect

When you click or this doesn't kill the application. It just retreats to the Systray (see Figure 10: GlobeTrotter Connect icon). This behaviour is equivalent to other Windows applications such as MSN messenger. To terminate the application you must 'Right Click' on the Title Bar and choose Exit.



• Figure 15: Exit GlobeTrotter Connect

5. SETTING UP A CONNECTION TO THE INTERNET

When you want to connect to the Internet you need to specify how you want to connect. You can do this in the settings screen (see the “Changing the program options” section of this manual).

As your mobile operator often preconfigures GlobeTrotter Connect for you the settings may already be in there.

5.1. Connecting to the Internet

To connect to the Internet simply click on the ‘GlobeTrotter Connect’ icon in the Systray (see screenshot) to display its menu. Click “Connect” to start the Internet connection.



• Figure 16: Connect

If software has not been configured, connecting to the Internet will fail. In this case refer to the “Changing the program options” section of this manual.

5.2. Disconnecting

To disconnect, click on the Systray icon to show the menu and select the “Disconnect” option.



• Figure 17: Disconnect

5.3. Changing the program options

Although GlobeTrotter Connect is a simple and straightforward software it has a number of items that need to be configured at least once (either preconfigured by the operator or manually by the user).

To change the settings, launch the Globetrotter Connect main window. You can do this by double clicking on the Systray icon or by selecting “Open GlobeTrotter Connect” from the Systray Icon menu.



• Figure 18: Basic View

Click on “Show settings” to make the configuration options visible.



• Figure 19: Advanced View

5.3.1. APN

The Access Point Name (APN) defines your route to the Internet. Your mobile operator can supply the APN (some operators may also specify a user name and password if required).

Most users will never have to change this setting. If you have entered the APN manually a button saying Automatic will appear next to the Save button. If you press this button the software will try to ‘guess’ the APN needed based on your SIM.

5.3.2. Enable/Disable the Pin Code

By clicking on 'Enabled' or 'Disabled' you can enable or disable the PIN code on your SIM. For security reasons you will have to provide the PIN code before you can disable the PIN code. If you enable the PIN code you'll have to enter a new code.

5.3.3. Technology Selection

Most of the time you should allow your data product to decide what technology to use. Sometimes local conditions will make connecting to the Internet difficult and the default setting "UMTS Preferred" may not give optimum performance.

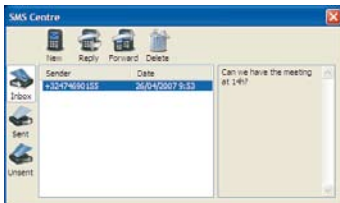
In these circumstances you can experiment by forcing the data connection on to "UMTS Only" or "GPRS Only". Remember to switch back the setting to "UMTS Preferred" when conditions change.

6. ACTIVATING THE SMS CENTRE

(not all versions of GT Connect contain the SMS module)

To activate the SMS click the SMS button. On the left side you see the different folders

- Inbox
- Sent
- Unsent (contains the draft SMSses)



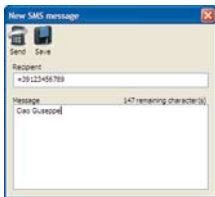
• Figure 20 SMS Centre

Click on any of these folders to see the messages it contains. To read a message click on it in the Sender or Date column. The text of a selected message is shown in the grey box on the right.

To Reply or Forward a message select it as above and press the appropriate button. A new message window opens containing the Reply number respectively the 'to be forwarded' text.

NEW MESSAGES

To create a new message press the New button. The New SMS Message window opens and you can start typing your message (max. 160 characters). To send the message fill in the recipients phone number and click Send. If you prefer to send your message at a later time click the Save button which automatically stores your message in the Unsent folder for later use.



• Figure 21 New Message

DELETE MESSAGES

To delete a message select it as explained above and press the Delete button.

7. PRODUCT SUPPORT AND ADDITIONAL HELP

The GlobeTrotter Connect updates will be made available from time to time at:
<http://www.option.com/support/login.shtml>

Additional support can be found at:
<http://support.option.com/support>

7.1. Technical Support

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

Technical questions can be posted after registering through our online Support Web on:
<http://support.option.com/support/newticket.php>

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

Safety Manual

Option GE 0301, GX 0301 Data Cards

1. Introduction

This document contains very important information about the safe operation of your Option datacard. We recommend you to read this entire document before using the card. Ignoring these guidelines may be dangerous or illegal.

1.1. Your Datacard is like a Mobile Phone

Your datacard uses the same technology as a mobile phone. It is important that you always obey all safety regulations related to mobile phone use. If you have any doubt about the safe operation of your datacard, you should remove the datacard from the PC and seek advice from authorized personnel.

2. Safety Measures

Please read the following guidelines carefully. Not following these guidelines can cause harm to the card, yourself or other persons.

2.1. General recommendations for use

- Always treat your product with care and keep in a clean and dust-free place. Do not expose your product to open flames or lit tobacco products.
- Do not expose to liquid, moisture or humidity. Do not expose the datacard to rain, or other liquids.
- Do not drop, throw or try to bend your product.
- Do not paint your product.
- Do not attempt to disassemble your product. Doing so may be dangerous and it will void the warranty.
- Do not touch the antenna unnecessarily.

2.2. Traveling

Handle the card with care while traveling. It is recommended to remove the card from the laptop.

2.3. Ambient Temperature

Do not expose the datacard or the antenna to ambient temperatures beyond the range of -25 to +50 degrees Celsius.

2.4. Explosive atmospheres

Turn off your PC in any area with a potentially explosive atmosphere. It is rare, but your PC could generate sparks, which could cause an explosion or fire. Areas with a potentially explosive atmosphere are not always, clearly marked. They include fuelling areas (petrol filling stations), below deck on boats, fuel or chemical transfer or storage facilities, and areas where the air contains chemicals or particles, such as grain, dust, or metal powders. Do not transport or store your PC and accessories in the compartment of a vehicle, which contains flammable gas, liquid or explosives.

2.5. Blasting areas – Construction sites

Turn off your PC when in a blasting area in order to avoid interfering with two-way radios used in blasting operations.

2.6. Do not use on aircraft

Using wireless devices on aircraft can cause interference and is illegal. Remove your datacard if you intend to use your PC whilst in an aircraft. Do not use it when the plane is on the ground without permission from the aircraft crew.

2.7 Do not use in hospitals

Please ensure you follow any local regulations or rules. People are often asked to switch off all electronic devices in some areas of a hospital; this is a recommendation that Option fully supports. Using a datacard close to sensitive electronic devices could possibly result in interference. If you intend to use your PC in such areas, you must remove the datacard.

2.8 Interference from radio signals

Option relies on advice from health authorities and relevant expert bodies about potential undesired responses to radio emissions from datacards.

2.9 Immunity to Interference

Electromagnetic interference is the disturbance of the normal operation of a device due to its undesired response to radio signals from an external source. Occasionally in some situations, you may hear short sounds coming from audio equipment such as radio or multimedia PC. However, these audible signals do not interfere with the operation of the equipment.

The 1989 Directive from the European Commission (89/336/ECC) 13 governing all forms of electronic equipment concerns interference that such equipment produces and its immunity to interference from outside. Any equipment compliant with that directive is unlikely to suffer interference. All wireless devices may get interference, which could affect performance.

2.10. Cardiac Pacemakers, Implanted Defibrillators & Other medical implant devices

It is possible that some datacards may interfere with some types of pacemakers or implanted defibrillators when operated close to the implanted device. You should seek advice from your doctor that is specific to the implant before using the datacard. Health authorities in many countries have set up advisory services for medical devices and implants including providing advice about maintaining separation distance between datacards or other radio frequency equipment and the implant. Option operating companies reflect the advice given by their relevant health authority or national advisory service and/or as a minimum indicate a separation distance of at least 20 cm between datacards or other radio frequency equipment and the embedded device.

2.11. Hearing devices

People with hearing aids or other cochlear implants may experience interfering noises when using mobile devices or when one is nearby. The level of interference will depend on the type of datacard, the type of hearing device and the distance between the two. Increasing the distance between the datacard and hearing device may reduce interference.

2.12. Children

Do not allow children to play with your datacard. They could hurt themselves or others, or could accidentally damage the datacard. Your datacard also contains small parts with sharp edges that may cause an injury or which could become detached and create a choking hazard.

2.13. Driving

Do not use data card while driving; park the vehicle first.

2.14. SIM cards

To protect against damage from electronic discharge (ESD) do not touch the SIM card connectors. As a precaution, always make sure that the datacard is already in your hand before you insert or remove the SIM card.

2.15. Accessories

Only use Option approved accessories. Do not connect with incompatible products. When used with accessories such as external antennas, Option can only guarantee safe and correct operation of our products if the accessories are tested and approved by us.

To comply with international safety requirements; when using an Option approved external antenna, you must ensure that it is kept from the body at a distance greater than 20 cm.

2.16. Safe Distance

We advise the end-user to keep a minimum distance of 20 cm between him and the device.

The datacard has been thoroughly tested to comply with SAR requirements. These tests simulate the absorption by the human body of radiation from the datacard.

The power maximums measured for a mass of 10 g (European bands) and a mass of 1 g (American bands) are :

GX 0301 (GT MAX HSUPA)

BAND	AVERAGED MASS	SAR MEASURED
GSM850	1 g	1,28 W/kg
GSM900	10 g	0,617 W/kg
GSM1800	10 g	0,447 W/kg
GSM1900	1 g	1,360 W/kg
FDD1	10 g	0,192 W/kg
FDD2	1 g	0,995 W/kg
FDD5	1 g	0,584 W/kg

GE 0301 (GlobeTrotter Express HSUPA)

BAND	AVERAGED MASS	SAR MEASURED
GSM850	1 g	1,43 W/kg
GSM900	10 g	1,45 W/kg
GSM1800	10 g	0,407 W/kg
GSM1900	1 g	0,811 W/kg
FDD1	10 g	1,20 W/kg
FDD2	1 g	1,53 W/kg
FDD5	1 g	0,882 W/kg

The SAR limit as defined by the European Council Recommendation is 2,0 W/kg for a mass of 10g (R&TTE Directive 1999 519 EC).

The FCC guidelines (OET 65) define a limit of 1,6 W/kg averaged over a

mass of 1 g. Based on these results, we state that the Option datacard complies with SAR requirements.

For day-to-day use, we would advise the user to keep a minimum distance from the antenna of 20 cm. When using an external antenna, it is advised to use the same safety distance of 20 cm from the external antenna.

2.17. Supply voltage

The Express card has to be supplied by a limited power source according to EN 60950 -1:2001.

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.
- **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' 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 that 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.

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