

TR-203A

Personal Tracker

User's Guide

v1.2



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History

Status	Version	Date	Comment	Audience
Approved	1.0.0	02/27/09	Document Creation	Public
Pending	1.1.0	03/04/09	Specification Revision	Public

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Table of Contents

1. Warning	4
2. Welcome	5
3. Overview	6
3.1 Introduction	6
3.2 Feature	6
3.3 Required Items for Tracking	6
4. Product Description	7
4.1 Tracker Description	7
4.2 LED Indicator Chart	8
4.3 Accessories	9
5. Operation	10
5.1 Battery Charging	10
5.2 SIM Card Installation	10
5.3 Initialization	11
5.4 Carry Bag	11
6. Specifications	13
6.1 Hardware	13
6.2 Rechargeable Battery Pack	14
7. Troubleshooting	15
8. Contact Information	16
9. Safety Information	16
10. Limited Warranty	18
11. FCC Notice	23
12. PTCRB Notice	24
13. CE Notice	25
Nominal electrical charging characteristics	26

1. Warning



USE RESPONSIBLY. READ ALL INSTRUCTIONS AND SAFETY INFORMATION BEFORE USE TO AVOID INJURY.

GlobalSat Technology Corporation / USGlobalSat, Inc. will not accept any responsibility whatsoever for accidents resulting from failure to observe the precautions provided. Manufacturer recommendations must always take precedence over any instructions produced by other manufacturers, vendors, telecommunication service providers, or tracking software developers.

WARNING: SIM card.

It is your responsibility as the device owner to disable voicemail, call waiting, and call forwarding. If not certain, contact your telecommunications service provider to disable these features.

WARNING: Power supply usage.

It is your responsibility as the device owner to charge the internal rechargeable battery for a minimum of three (3) hours via the supplied AC power adapter under the power-off condition. This is highly recommended for first time users.

WARNING: Battery care.

It is your responsibility as the device owner to meet all battery operating parameters set forth by the manufacturer's specifications. Otherwise, operators exceeding the recommended Li-Ion battery pack care may encounter a potential risk of heating, explosion, and ignition leading to the risk of fire and burns. Do not disassemble, crush, puncture, short contacts and dispose in fire or water. Do not use battery if the following is encounter: notice physical damage, deformed, or emissions a foul odor.

WARNING: TO REDUCE FIRE OR SHOCK HAZARD RISK, DO NOT EXPOSE PRODUCT TO RAIN OR MOISTURE. DO NOT REMOVE ENCLOSURE. THERE IS NO USER INTERNAL SERVICEABLE PARTS. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

2. Welcome

Thank you for purchasing the GlobalSat TR-203A Personal Tracker. The TR-203A device incorporates the most sophisticated communication mediums such as the GPS, GPRS, and SMS technologies via a GSM network used today by many telecommunication industries. GlobalSat has married these technologies and transformed it to a higher and better use, the result...an intelligent tracking device with the ability to monitor parties remotely; i.e., the elderly, children, pets, and vehicles.

In today's society, the need for tracking is essential and its applications are endless. The TR-203A device meets and exceeds these needs for personal and asset tracking/management applications.

3. Overview

3.1 Introduction

TR-203A is a personal tracking device with fast acquisition times. Its compact, portable, and stylish design users can remotely configure the TR-203A with ease. Displaying its physical location via a mapping application of choice. In addition to its overall tracking abilities, the device incorporates voice monitoring, geofencing, and data logging functions.

3.2 Features

The TR-203A encompasses many of today's necessary features for tracking applications.

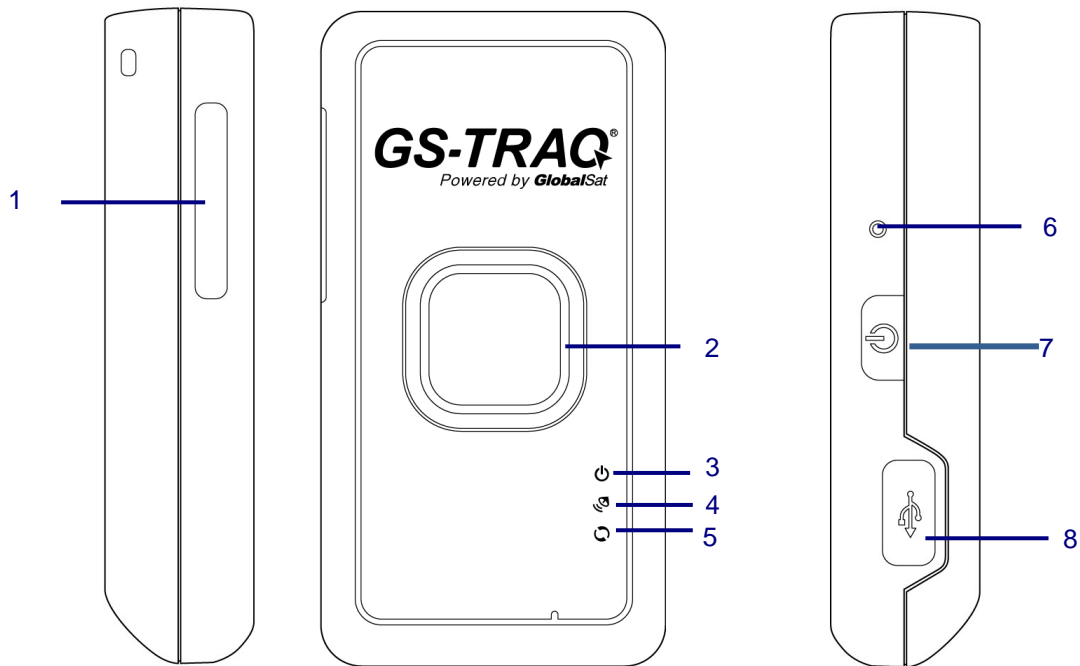
- High sensitivity GPS chipset
- Combination of GPS and GSM/GPRS wireless network
- Quad-band GSM (850/900/1800/1900MHz) and GPRS class10
- Position tracking function: locate with preset time interval or one time report via SMS or GPRS
- Built-in data logger capability to record up to 150,000 data positions
- Effortless configuration via SMS, GPRS, or USB
- SOS button for emergency rescue and action
- Low power alarm by SMS/GPRS
- Voice-Monitor function
- GeoFence function

3.3 Required Items for Tracking

- TR-203A Personal Tracker (included)
- GSM SIM Card (provided separately)
- Tracking Software (provided separately)

4. Product Description

4.1 Tracker Description



1. SIM Card Holder

2. SOS Button

3. Power Status LED

4. GPS LED

5. GSM LED

6. Reset Button

7. Power Button

8. Mini-USB Port

4. Product Description (Continued)

4.2 LED Indicator Chart

Power Status LED

LED	Orange	Red
State	TR-203A is connected to charger or USB cable	Battery power is low

GPS LED

LED	Blink Quickly (Once per second)	Blink Slowly (Once every 3 seconds)
State	TR-203A does not get GPS fix	TR-203A gets GPS fix

GSM LED

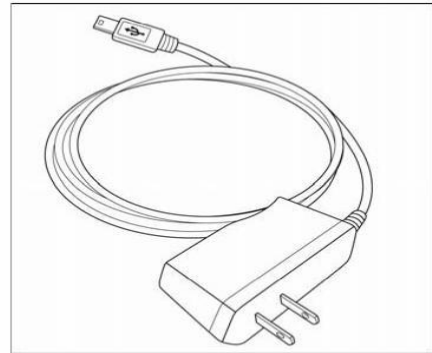
LED	Blink Quickly (Once per second)	Blink Slowly (Once every 3 seconds)
State	No SIM card inserted TR-203A is searching GSM network SIM card is registering to GSM	Standby Mode

4. Product Description (Continued)

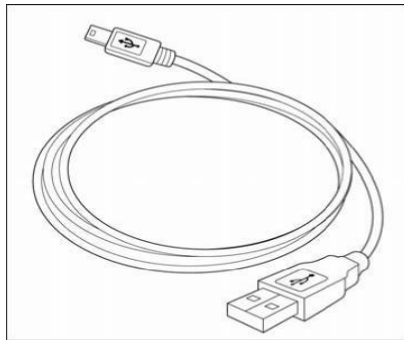
4.3 Accessories



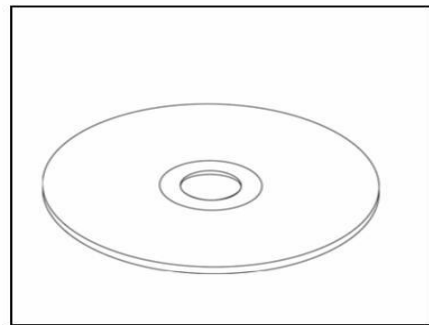
TR-203A



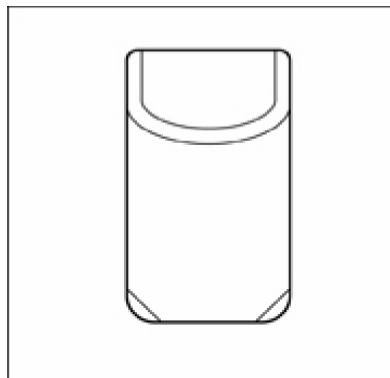
AC charger



USB cable



CD ROM



Carry Bag

5. Operation

5.1 Battery Charging



Figure 1

Initially, the enclosed rechargeable battery requires a complete charge before device usage. Therefore, to maximize your device's battery life, it is highly recommended to proceed by performing the steps listed below.

METHOD 1: Using the AC adapter cable charge method:

1. Connect TR-203A to its supplied AC adapter cable.
2. Allow a 4 hour battery charge time. (TR-203A in power-off condition)

METHOD 2: Using the USB cable charge method:

3. Connect TR-203A to its supplied USB to Mini-USB cable to PC or Notebook. (Computer requires to be turned "ON")
4. Allow a 4 hour battery charge time. (TR-203A in power-off condition)

5.2 SIM Card Installation

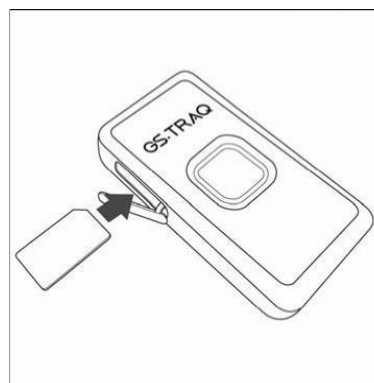


Figure 2

With the copper contacts facedown, align the notch on the SIM card with the notch on the SIM slot and insert the SIM card. If the SIM is inserted correctly, you will not be able to see the copper contacts after inserting the card. To eject SIM card, simply, use your fingernail and apply slight pressure.

5. Operation (Continued)

5.3 Initialization

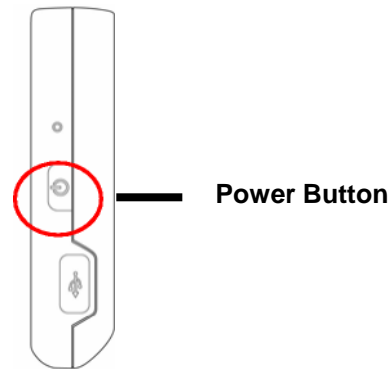


Figure 3

To turn the device "ON", press and hold the power button until you feel the device vibrating. To turn the device "OFF", press and hold the power button until you feel the device vibrating. The vibration effect indicates the user requests have been acknowledged.

5.4 Carry Bag

The enclosed carry bag provides versatility to users with applications encompassing persons and/or pets. In addition to flexibility, security is the other important attribute with the assistance of a belt.

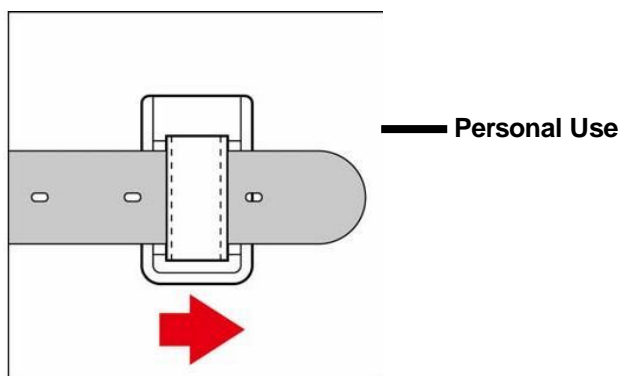


Figure 4

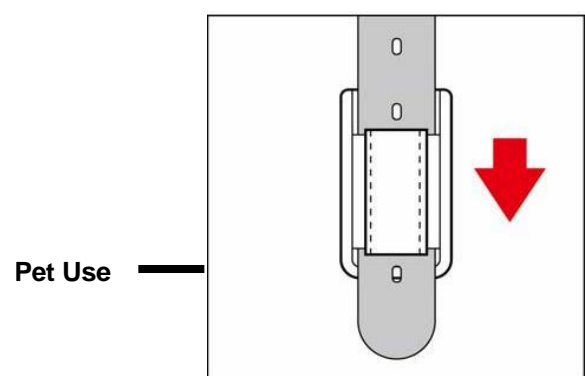


Figure 5

5. Operation (Continued)

Slide the TR-203A device into the carry bag, until it's secured. To remove the TR-203A device from the carry bag, simply apply pressure at the bottom with outward force pushing the TR-203A out of the bag as pictured below.

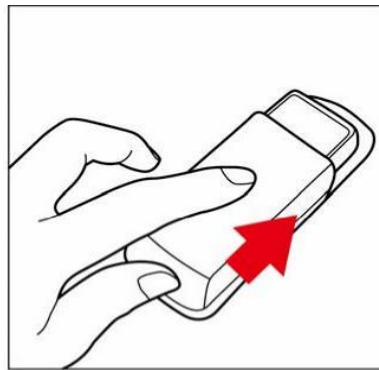


Figure 6

6. Specifications

6.1 Hardware

The electrical specifications apply to the TR-203A Personal Tracker.

The Hardware Specifications

Description:	Specifications:
Model:	TR-203A
GSM module:	SIMCOM 900 GSM/GPRS module
GSM Antenna Type :	GSM 850/900/1800/1900 monopole antenna system
GPS Chipset:	High Sensitivity GPS Receiver
Operating Temperature:	Battery: -20°C~60°C
	Charger: 0°C~45°C
Humidity:	5% to 95% Non-condensing
Rechargeable Battery:	920mAh Li-ion battery (3.7V)
Battery Life:	1.) Standby(GSM ON, GPS OFF) without any activity: 200 hrs. 2.) Period Report Mode every 30 minutes (GSM ON, GPS OFF): 100 hrs. 3.) Sleep Mode (GSM OFF, GPS OFF) without any activity : 120 days
USB Port:	Mini-USB port connector for charging
Charging:	5VDC
LED Indicators:	Power Status, GSM, GPS, SOS
Dimensions:	79.1 mm x 41.8 mm x 18 mm
Buttons:	Power button Reset button SOS button
Accessories:	1.) AC Charger 2.) USB cable 3.) CD-ROM: Quick start guide, drivers, etc.
Certification:	CE, FCC, PTCRB
Data Logger Flash Memory:	150,000 data records
Waterproof:	IPX4

6. Specifications (Continued)

6.2 Rechargeable Battery Pack Specifications

The electrical specifications below apply for ambient temperature TAMB of 0°C to +45°C

The Electrical Specification

Item	Description	Specification	Unit	Remark
1	Interface Chipset	N/A	-	-
2	Rated voltage	3.7	V	Typical
3	Rated capacity	920mAh/3.4(Whr)	-	Typical
4	Rated charge current	0.4	A	Typical
5	Charge voltage	4.2 +/- 0.05	V	Maximum
6	Discharge cut-off voltage	3.0	V	Typical
7	Charge method	Constant voltage Current limited	-	-
8	Discharge Current	0.5C (-20°C to 60°C)	-	Typical
9	Internal Resistance	250	mΩ	Maximum
10	Charge Temperature	0°C ~ 45°C	°C	Typical

Battery Pack Electrical Specification

Item	Description	Specification			Unit
		Min.	Typ.	Max.	
					-
1	Over voltage detection voltage	4.325	4.350	4.375	V
2	Charge enable	4.10	4.15	4.20	V
3	Under voltage detection voltage	2.5	2.6	2.7	V
4	Over current detection current	2.97	3.17	3.36	A
5	Short-circuit detection current	9.9	13.33	16.83	A
6	Short-circuit detection voltage	150	200	250	mV
7	Over voltage delay time	0.8	1	1.2	s
8	Under voltage delay time	90	100	110	ms
9	Over current delay time	5	10	20	ms
10	Short-circuit delay time	160	200	240	μs
11	Recovery charge current	0.5	1	2	mA
12	Over current maximum value	An over current maximum value during the 20ms detection period of 5A won't be damaging the battery pack.			

7. Troubleshooting

Problem	Solution
TR-203A cannot receive GPS signals.	Take your TR-203A outdoors and away from tall buildings and trees. Remain stationary for several minutes to get the necessary GPS information from satellites.
TR-203A cannot turn "ON".	<ol style="list-style-type: none">1. Verify if the battery is fully charged.2. Verify the original designated charging cable is functional with the supplemental charging cable.
I cannot see the TR-203A's location.	<ol style="list-style-type: none">1. Be certain the SIM card is inserted properly as instructed in the SIM card installation section.2. Validate your telecommunication service provider settings are correct.3. Validate your tracker program incorporates the necessary TR-203A settings provided by your telecommunication service provider.

8. Contact Information

GlobalSat Technology Corporation (Taiwan)

www.GlobalSat.com.tw

service@GlobalSat.com.tw

(pre-sales GPS product questions only)

USGlobalSat, Inc. (North America)

www.USGlobalSat.com

sales@USGlobalSat.com

(pre-sales GPS product questions only)

Technical Support (North America)

See our DOWNLOADS and FAQ section on our web-site for GPS driver updates.

www.USGlobalSat.com

Product Pre-Registration Requirements: Before receiving product technical support and/ or online support from our "Support Ticket" system from USGlobalSat's website. Using our online support will expedite in receiving product resolutions in a secure and prompt manner. Note, products purchased from an authorized USGlobalSat dealer, require account and product registration at: <http://www.USGlobalSat.com/store/support/>

9. Safety Information

- As for the operation of this product in the aircraft, please consult the aviation company first. Special care should be taken when an electronics device is engaged during a flight.
- Never get close to a place emitting intensive radio waves or radiation which could affect the operation of this product.
- Never expose this product to humid environment or rain, as the water could leak into it and disable the device to the extent of beyond repair.
- Over-voltage, power cable strain, being bent or squeezed by heavy objects is not allowed to avoid device overheating or fire disaster.
- Never deploy any chemical or detergent to clean up the device in order to prevent erosion of the surface or paintwork.
- In order to eliminate the risk of electric shock, do not touch the cable power plug with wet hands. Water may cause permanent device damage.
- Never charge the battery in an extremely cold nor hot environments, this could damage the battery.
- Keep this product out of reach from children when charging.

9. Safety Information (Continued)

- Never put it under direct sunlight or in a place with high temperature. This would avoid the problem of overheating the battery or this product, which could be dangerous.
- When any sort of fault comes into being, please contact the qualified maintenance personnel for service rather than disassemble the device at your own discretion.
- Keep all the wires in order so as to prevent damage-fostering tangling.

10. Limited Warranty

GlobalSat/USGlobalSat (1) Year Limited Warranty

FOR CONSUMERS, WHO ARE COVERED BY CONSUMER PROTECTION LAWS OR REGULATIONS IN THEIR COUNTRY OF PURCHASE OR, IF DIFFERENT, IN THEIR COUNTRY OF RESIDENCE, THE BENEFITS CONFERRED BY THIS WARRANTY ARE IN ADDITION TO ALL RIGHTS AND REMEDIES CONVEYED BY SUCH CONSUMER PROTECTION LAWS AND REGULATIONS. THIS WARRANTY DOES NOT EXCLUDE, LIMIT, OR SUSPEND ANY RIGHTS OF CONSUMERS ARISING OUT OF NONCONFORMITY WITH A SALES CONTRACT. SOME COUNTRIES, STATES, AND PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY OR CONDITION MAY LAST, SO THE LIMITATIONS OR EXCLUSIONS DESCRIBED BELOW MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS THAT VARY BY COUNTRY, STATE, OR PROVINCE. THIS LIMITED WARRANTY IS GOVERNED BY AND CONSTRUED UNDER THE LAWS OF THE COUNTRY IN WHICH PRODUCT PURCHASE TOOK PLACE. GLOBALSAT/ USGLOBALSAT, THE WARRANTOR UNDER THIS LIMITED WARRANTY, IS IDENTIFIED AT THE END OF THIS DOCUMENT ACCORDING TO THE COUNTRY OR REGION IN WHICH THE PRODUCT PURCHASE TOOK PLACE.

GlobalSat/USGlobalSat's warranty obligations for this hardware product are limited to the terms set forth below:

GlobalSat/USGlobalSat, as defined below, warrants this hardware product against manufacturing defects in materials and workmanship under normal use for a period of ONE (1) year from the date of retail purchase by the original end-user purchaser and purchased from a recognized "authorized dealer" ("Warranty Period"). Products purchased from any unauthorized source, such as unauthorized e-Bay resellers, will not qualify for free warranty service/support and may require the end-user to pre-pay fees associated with, but not limited to the support, repair, replacement, and shipping of the product to and from the service center. If a hardware defect arises and a valid claim is received by GlobalSat/USGlobalSat within the Warranty Period, at its option and to the extent permitted by law, GlobalSat/USGlobalSat will either (1) repair the product at no charge, using new parts or parts equivalent to new in performance and reliability, (2) exchange the product with a product that is new or equivalent to new in performance and reliability and is at least functionally equivalent to the original product or, (3) refund the purchase price of the product. GlobalSat/USGlobalSat may request that you replace defective parts with new or refurbished user-installable parts that GlobalSat/USGlobalSat provides

10. Limited Warranty (Continued)

in fulfillment of its warranty obligation. A replacement product or part, including a user-installable part that has been installed in accordance with the instructions provided by GlobalSat/USGlobalSat, assumes the remaining warranty of the original product or ninety (90) days from the date of replacement or repair, whichever provides longer coverage for you. When a product or part is exchanged, any replacement item becomes your property and the replaced items become GlobalSat/USGlobalSat's property. Parts provided by GlobalSat/USGlobalSat in the fulfillment of its warranty obligation must be used in products for which warranty service is claimed. When a refund is given, the product for which the refund is provided must be returned to GlobalSat/USGlobalSat and become GlobalSat/USGlobalSat's property.

If a defect arises and a valid claim is received by GlobalSat/USGlobalSat after the first one hundred and eighty (180) days of Warranty period, shipping and handling charge may apply to any repair or exchange of the product undertaken by GlobalSat/USGlobalSat.

EXCLUSIONS AND LIMITATIONS

This Limited Warranty applies only to the hardware product manufactured by or for GlobalSat that can be identified by the "GlobalSat" trademark, trade name, or logo annexed to it. The Limited Warranty does not apply to any non-GlobalSat hardware product or any software, even if packaged or sold with the GlobalSat hardware.

Manufacturers, suppliers, or publishers, other than GlobalSat/USGlobalSat, may provide their own warranties to the end user purchaser, but GlobalSat/USGlobalSat, in so far as permitted by law, provides their products "as-is". Software distributed by GlobalSat/USGlobalSat with or without the GlobalSat brand name (including, but not limited to system software) is not covered under this Limited Warranty. Refer to the licensing agreement accompanying the software for details of your rights with respect to its use. GlobalSat/USGlobalSat does not warrant that the operation of the product will be uninterrupted or error-free. GlobalSat/USGlobalSat is not responsible for damage arising from failure to follow instructions relating to the product's use.

This warranty does not apply: (a) to consumable parts, such as batteries, unless damage has occurred due to a defect in materials and workmanship; (b) to cosmetic damage, including but not limited to scratches, dents, and broken plastic on ports; (c) to damage cause by use accident, abuse, misuse, flood, fire, earthquake, or other external causes; (e) to damage caused by operating the product outside the permitted or intended uses described by GlobalSat/USGlobalSat; (f) to damage caused by service (including upgrades and expansions) performed by anyone who is not a

10. Limited Warranty (Continued)

representative of GlobalSat/USGlobalSat or a GlobalSat/USGlobalSat authorized service provider; (g) to a product or part that has been modified to alter functionality or capability without the written permission of GlobalSat/USGlobalSat; or if any GlobalSat/USGlobalSat serial number has been removed or defaced.

IMPORTANT: Do not open the hardware product. Opening the hardware product may cause damage that is not covered by this warranty. Only GlobalSat/USGlobalSat or an authorized service provider should perform service on this hardware product.

TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY AND THE REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, STATUTORY, EXPRESS OR IMPLIED. AS PERMITTED BY APPLICABLE LAW, GLOBALSAT/USGLOBALSAT SPECIFICALLY DISCLAIMS ANY AND ALL STATUTORY OR IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND WARRANTIES AGAINST HIDDEN OR LATENT DEFECTS. IF GLOBALSAT/USGLOBALSAT CANNOT LAWFULLY DISCLAIM STATUTORY OR IMPLIED WARRANTIES THEN TO THE EXTENT PERMITTED BY LAW, ALL SUCH WARRANTIES SHALL BE LIMITED IN DURATION OF THE EXPRESS WARRANTY AND TO THE REPAIR OR REPLACEMENT SERVICE AS DETERMINED BY GLOBALSAT/USGLOBALSAT IN ITS SOLE DISCRETION.

No GlobalSat/USGlobalSat reseller, agent, or employee is authorized to make any modifications, extension, or addition to this warranty. If any term is held to be illegal or unenforceable, the legality or enforceability of the remaining terms shall not be affected or impaired.

EXCEPT AS PROVIDED IN THIS WARRANTY AND TO THE MAXIMUM EXTENT PERMITTED BY LAW, GLOBALSAT/USGLOBALSAT IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOSS OF USE; LOSS OF REVENUE; LOSS OF ACTUAL OR ANTICIPATED PROFITS (INCLUDING LOSS OF PROFITS ON CONTRACTS); LOSS OF THE USE OF MONEY; LOSS OF ANTICIPATED SAVINGS; LOSS OF BUSINESS; LOSS OF OPPORTUNITY; LOSS OF GOODWILL; LOSS OF REPUTATION; LOSS OF DAMAGE TO OR CORRUPTION OF DATA; OR ANY INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE HOWSOEVER CAUSED INCLUDING THE REPLACEMENT OF EQUIPMENT AND

10. Limited Warranty (Continued)

PROPERTY, ANY COSTS OF RECOVERING, PROGRAMMING OR REPRODUCING ANY PROGRAM OR DATA STORED IN OR USED WITH THE GLOBALSAT/ USGLOBALSAT PRODUCT AND ANY FAILURE TO MAINTAIN THE CONFIDENTIALITY OF DATA STORED ON THE PRODUCT. THE FOREGOING LIMITATION SHALL NOT APPLY TO DEATH OR PERSONAL INJURY CLAIMS, OR ANY STATUTORY LIABILITY FOR INTENTIONAL AND GROSS NEGLIGENT ACTS AND/OR OMISSIONS. GLOBALSAT/USGLOBALSAT DISCLAIMS ANY REPRESENTATION THAT IT WILL BE ABLE TO REPAIR ANY PRODUCT UNDER THIS WARRANTY OR MAKE A PRODUCT EXCHANGE WITHOUT RISK TO OR LOSS OF PROGRAMS OR DATA.

OBTAINING WARRANTY SERVICE

Please access and review the online help resources referred to in the documentation accompanying this hardware product before seeking warranty service. If the product is still not functioning properly after making use of these resources, access the online website www.USGlobalSat.com for instructions on how to obtain warranty service. You must follow GlobalSat/USGlobalSat warranty processes. GlobalSat/USGlobalSat may provide warranty service (i) by sending the unit to GlobalSat/USGlobalSat location, where service is performed at the location, or (ii) by sending the unit to an authorized GlobalSat/USGlobalSat supplier (iii) by sending you new or refurbished customer-installable replacement product or parts to enable you to service or exchange your own product ("RMA service"). Upon receipt of the replacement product or part, the original product or part becomes the property of GlobalSat/USGlobalSat and you agree to follow instructions, including, if requires, arranging the return of the product or part to GlobalSat/USGlobalSat in a timely manner. When providing RMA service requiring the return of the original product or part, GlobalSat/USGlobalSat may require credit card authorization as security for the retail price of the replacement product or part and applicable shipping costs. If you follow the instructions, GlobalSat/USGlobalSat will cancel the credit card authorization, so you will not be charged for the product or part and shipping costs. If you fail to return the replace product or part as instructed, GlobalSat/USGlobalSat will charge the credit card for the authorized amount. Service options, parts availability, and response times may vary according to the country in which service is requested. Service options are subject to change at any time. You may be responsible for shipping and handling charges if product cannot be serviced in the country in which service is requested. If you seek service in a country that is not the country of purchase, you will comply with applicable export laws and regulations and be responsible for all custom duties, V.A.T., and other associated taxes and charges. For international service, GlobalSat/USGlobalSat may repair or exchange defective products and parts with comparable products and parts that comply with local standards. In accordance with applicable law, GlobalSat/USGlobalSat may require that you furnish proof of purchase details and/ or comply with the registration requirements before receiving warranty service.

10. Limited Warranty (Continued)

Please refer to the accompanying documentation for more details on this and other matters obtaining warranty service.

GlobalSat/USGlobalSat will maintain and use customer information in accordance with the GlobalSat/USGlobalSat

Privacy Policy.

If your product is capable of storing software programs, data and other information, you should make periodic backup copies of the information contained on the product's hard drive or other storage media to protect the contents and as a precaution against possible operational failures. Before you deliver your product for warranty service it is your responsibility to keep a separate backup copy of the contents, and disable any security passwords. IT IS POSSIBLE THAT THE CONTENTS OF YOUR HARD DRIVE WILL BE LOST OR REFORMATTED IN THE COURSE OF WARRANTY SERVICE, AND GLOBALSAT/USGLOBALSAT AND ITS AGENTS ARE NOT RESPONSIBLE FOR ANY DAMAGE TO OR LOSS OF PROGRAMS, DATA, OR OTHER INFORMATION CONTAINED ON THE MEDIA OR ANY PART OF THE PRODUCT SERVICED. Your product will be returned to you configured as originally purchased, subject to applicable updates. You will be responsible for reinstalling all other software programs, data, and passwords. Recovery and reinstallation of service programs and user data are not covered under this Limited Warranty.

11. FCC Notices

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 utilizes, exhibits 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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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.

IMPORTANT NOTE:

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. To maintain compliance with FCC RF exposure compliance requirements, please follow operation instruction as documented in this manual.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

12. PTCRB Notice

PTCRB stands for (PCS Type Certification Review Board). The PTCRB Certification process is administered by CTIA via the PTCRB website. It manages the test and certification process for manufacturers of GSM/UMTS wireless devices which will be operating on PTCRB operator networks (mainly North America). This way the PTCRB network operators ensure that a minimum set of 'device performance requirements' are met and that the wireless devices in use will not cause harm to their networks. PTCRB operators reserve the right to block devices which are not PTCRB certified.

PTCRB certification is **important for both module manufacturers and End Product manufacturers** implementing PTCRB certified modules. For North American markets, manufacturers, who integrate a pre-certified module into their GSM/UMTS wireless M2M device, have to submit their "End Product" in its final (production) form factor to a PTCRB authorized test laboratory for testing & certification.

Because the majority of the test cases have already been completed when the module was initially certified, an "End Product" device manufacturer / integrator will only be required to perform a **minimal amount of testing**. This is to ensure that the interfaces associated with the integration will meet the PTCRB expected performance requirements.

7 layers has been operating PTCRB accredited laboratories for almost 10 years. You can rely on our up-to-date understanding of the PTCRB regulations combined with an extensive knowledge of the world's leading wireless modules.

13. CE Notice

European Union Notice

If this product has telecommunications functionality, it also complies with the essential requirements of the following EU Directive:

* R&TTE Directive 1999/5/EC

Compliance with these directives implies conformity to harmonized European standards (European Norms) that are listed in the EU Declaration of Conformity issued by GlobalSat for this product or product family.

This compliance is indicated by one of the following conformity markings placed on the product.

This CE marking is valid for EU non-harmonized telecommunications products

“ **CE 0560** ”

The GPRS and GSM antenna of the product, under normal use condition is at least 20cm away from the body of the user in data link modes.

This equipment should be installed and operated with a minimum distance of 15mm between the radiator and your body.

Your tracking device is a radio transmitter and receiver. It is designed and manufactured not to exceed limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission (FCC) of the U.S. Government and by the Canadian regulatory authorities. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population.

The exposure standard for cellular communication devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The tests for SAR have been conducted based on the standard operating position away from body 15mm. Please keep this distance when the device is in operation.

Nominal electrical charging characteristics

Li-Ion Rechargeable Battery:

3.7 Vcc 900mAh

Adapter:

Input: 100 – 240 Vac

Frequency: 50 - 60Hz 0.2 A

Output: 5.0 Vcc 1.2 A