

# GT-2000

## GPS/GPRS/SMS Personal Tracking and Security System



### what is it?

The GT-2000 is a simple to use, GPS tracking, monitoring and security device. It can be carried on a person or it can be attached to an object that requires tracking.

### what does it do?

The GT-2000 allows a person, vehicle or any asset to be remotely monitored and tracked over the internet in real time. It can send reports containing information about its position, speed and direction of travel etc. A user can send 'Help' or 'SOS' reports, and, with its built-in voice function, can receive phone calls and make emergency phone calls.

### who is it for?

The GT-2000 is simple to operate, so it can be used by anyone - even the young and the elderly. It can be used by executives for extra security while travelling, lone workers, emergency services personnel and correctional authorities for tracking offenders etc.

### what applications is it for?

The GT-2000 is web-based, so it can easily integrate into a wide range of business and personal applications. For personal use, it can be used for child tracking, recreational or sporting use. For commercial use, it can be used for mobile resource management and field worker productivity. It can also be used as a 'last resort' security device for private aviation use.

### what's so special about it?

- Simple to operate
- Small, light, easy to carry and concealable
- Receive phone calls from anyone
- Make phone calls to preset phone numbers
- Can be used in vehicles
- Web-based for easy integration

### Design features

- Small and light
- Sony Ericsson GPRS module
- Sarantel omni-directional GPS antenna
- SiRF Star III GPS module for high GPS signal sensitivity
- Intelligent power saving functions
- COM port for easy, fast data transfer to a PC
- LED indicators display the system's working status

### Special functions

- Send 'Help' and 'SOS' reports
- Multiple reporting methods
- 4 fully configurable circular geofences
- 1 configurable self-geofence function
- Monitor mode 1: If the carrier thinks he is in a high risk situation, he can press a button to activate a microphone in the unit, so that the monitoring centre (or anyone that phones the unit) can eavesdrop on the situation.
- Monitor mode 2: Anyone who knows a preset password can 'call' the unit and eavesdrop on the unit's surroundings at any time (even without the carrier knowing).
- Built-in tilt sensor means that if the device is moved, then it will automatically send a 'trigger' report

### how does it work?

The GT-2000 device collects information about itself (such as speed, direction of travel etc). All of this data is then transmitted in a report through the GSM network to the internet where it is received by the server (both UDP & TCP protocols are supported).

If there is no GPRS service, or if the server is closed, then the report will be sent via SMS to a preconfigured telephone number. In the interim, all reports will be stored on the unit's internal flash memory (which can store up to 900 reports). When the unit eventually reconnects with the server, all stored reports will be automatically forwarded.

### what data is in the report?

- Date and time of report
- Unit's location
- Unit's speed
- Unit's direction of travel
- battery status

## how often can a report be sent?

When, and how often a report is sent is fully configurable. These include:

**Real-time tracking:** The device's position and its status can be monitored in real time (usually using mapping software).

**Fixed time/distance reporting:** A report can be sent to the server at fixed time intervals (e.g. every 10 mins) or at fixed distance intervals (e.g. every 10km)

**Report on demand:** A remote user can poll the device and request a report on demand.

**Event reporting:** A report can be sent to the server when:

- The unit is shaken while in 'rest' mode
- Unit's carrier activates the 'Help' or 'SOS' commands
- Unit strays inside/outside of a geofence area
- Unit's speed exceeds a preconfigured limit
- Battery power falls to a certain level
- Unit changes direction of travel\*

## what can the unit's carrier do?

- Make phone calls to any of 3 preset numbers
- Receive phone calls from anyone
- Activate the 'Help' or 'SOS' commands
- Activate/deactivate the monitor modes
- Activate/deactivate a self-geofence
- Select the alert method for incoming calls (ring, vibrate or both)

## what can be operated remotely?

- Anyone can make a phone call to the unit
- Anyone with the 'password' can eavesdrop on the unit's surroundings at any time (without the carrier knowing)
- Persons without a password can eavesdrop on the unit's surroundings (with the carriers permission)
- Anyone can poll the unit by phone/SMS to request a report
- Enable/disable any of the power saving modes.

\* With Trimble module version only

## what do I need to make it work?

1. A SIM card from a GSM provider.
2. A server.
3. As an alternative to a server, If you need to track up to 50 devices, Portman offers the M2 Mercury system. This is basically a GSM modem (connected to your PC) that will receive the vehicle data via an SMS report. The SMS data is then transferred from the modem into the PC (which must have either Microsoft MapPoint or any mapping software using standard 'MapInfo' or 'ESRI' formats). Please see separate datasheet on the M2 for more information.

## can it be customised for me?

The GT-2000 is available in a choice of two GPS modules. If there are any special functions that are required, then we will try to accommodate them. Under an OEM arrangement, we can customise and re-brand the product including your logo, customised software, packaging, labeling, printing and instruction manuals etc.

## how can i try it out?

Please contact us if you would like to order a sample.

## what if something goes wrong?

All Portman products and accessories come with a one-year warranty.

# GT-2000

## GPS/GPRS/SMS Personal Tracking and Security System

### what comes with it?



GT-2000 Personal Tracking Unit (incl. battery)



All-in-one PC Setup and Data Transfer Cable



Battery Charger



In-car Holder (Optional Extra)



Cigarette Charger (Optional Extra)

### physical parameters

Dimensions (mm)	94 x 60 x 28.5
Weight	100g

### electrical

#### Power

DC supply voltage	3.5V
Recharge voltage	5V-6V
Current (GPRS online)	80mA
Current (GPRS transmitting)	120mA
Current (peak)	300mA
Current (sleep mode)	15mA

#### Internal battery

Battery type	Lithium 3.6V
Battery capacity	1.6 A/h
Charge type	Built-in charge circuit

### environmental

Operating temperature	-20°C to +55°C
Storage temperature	-40°C to +85°C

### i/o connections

Power on/off button
3 speed dial buttons
1 volume adjust button

### gprs module

Frequency range (MHz)	900/1800 or 850/1900 (both models available)
Channel spacing (Hz)	200
GPRS connectivity	GPRS multi-slot class 8 GPRS mobile station class B
SIM card interface	3v/5v
SMS storage capacity	40 in ME
Antenna type	Embedded
Antenna impedance	50ohms

### gps module

#### Communication

Chipset	SIRF Star III technology
Channels	20
Protocol	NMEA0183
Baud rate	4,800
Signal	L1 1575.42 MHz
Antenna type	Embedded omni-directional

#### GPS Accuracy

Accuracy	<5m
Velocity	0.1m/s
Max altitude	18,000m (60,000ft)

#### GPS signal acquisition

Hot start	<8s
Warm start	<38s
Cold start	<42s
Reacquisition	0.1 sec average
Snap start	1 sec average



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