

# **HoIP Pebbell® SOS Pendant Alarm**

## **USER GUIDE**

**Personal/Asset/Pet GPS TRACKING SYSTEM**



Please read this document before using the product. Neglecting the rules may be dangerous or illegal. Further detailed information is given in this manual.

- Do not switch the product on when wireless phone use is prohibited or when it may cause interference or danger.
- Do not use the product in hospitals. Follow the hospital regulations or rules. Switch off the product near medical equipment.
- Do not use the product on aircrafts. Wireless devices can cause interference in aircraft.
- Do not use the product at a refuelling point. Do not use the product near fuel or chemicals.
- Do not use the product where blasting is in progress. Observe restrictions, and follow any regulations or rules.
- Never try to disassemble or service the product. Only qualified personnel may repair the product.
- Use only approved accessories and batteries. Do not connect incompatible battery charger or charge other devices with the Pebbell GPS charger. A wrong charger may damage the device.
- Take the product to the appropriate collecting point for recycling when disposed.

## **1. Product Overview**

Thank you for using Pebbell GPS. The new Pebbell GPS tracker is the sweetest and most user-friendly product ever. This device is an innovative miniature size personal remote positioning device with built-in U-blox 7 GPS and GSM/GPRS technology. It's for monitoring and protecting people and property. It can be used in all walks of life from traveling lone workers and mobile nursing staff to children and the elderly, Dementia etc. This User's Manual will give you an overview of the product and the features it provides.

### **What's New in Pebbell?**

1. Unique design, combination of style and technology.
2. Supports A-GPS for accelerated positioning.
3. Supports GPS and Cellular tracking.
4. Two way voice communications.
5. Fall detection via 3D G-sensor
6. Firmware upgrade over the air.
7. Built-in 8MB flash memory.
8. GPRS blind area data re-upload function.

## 2. Getting Start, Please follow me!

### 2.1 Hardware and Accessories:

This device is supplied in a box which includes:



Device



Matching Color USB Cable

### 2.2 Functional Parts



### 2.3 SIM card Installation

The SIM card is usually preinstalled in Pebbell already if this is not the case not then, lift SIM card cover and insert activated Micro SIM card by the direction of the picture shows.



## 2.4 Charging the Battery

The Pebbell GPS device is equipped with an internal rechargeable battery. The autonomy of the battery may vary depending on the GPS and GSM activity and the use of the device.

**IMPORTANT!** When charging for the first time, the battery needs to be charged for at least 6 hours. Thus the maximum capacity and lifecycle of the battery is ensured.

When charging, the Power LED will be on (solid). After fully charged, the power LED will be off.

Also, please note that a wrong charger may damage the device. Use only the original Pebbell GPS charger.

**Note** that the ideal temperature range for charging is between +10° C and +30° C. The battery life might be shortened if charging the battery below or above those temperatures.

### Switching the device on and off

- ✓ **To turn on device:** press and hold the power button for 3 seconds, all LED will flash rapidly.
  - ❖ Please keep the unit under the open sky or close the window to be able to get a fix on the satellites.
- ✓ **To turn off device:** press and hold the power button for 3 seconds, after you hear beep sound, device is turned off.

### Getting Started

Make sure that you have charged the device for at least 6 hours.



Place the device outside Pebbell GPS device should have unobstructed access to the sky. Turn the power - press and hold the power button for 3 seconds, all LED will flash rapidly. To receive first position may take some minutes

## 2.5 What does the LED lights mean?

<b>GSM LED—GREEN LED</b>	
Light shows a single flash rapidly every 3 seconds	The device is connected to GSM network
Light shows a double flash rapidly every 3 seconds	The device is registered to GPRS network
Light shows a slow flash every 3 seconds	The device is connecting to GSM network
Light Solid (not flashing)	No SIM Card detected
<b>GPS LED—RED LED</b>	
Red On	The device is charging
Red OFF	The device is not charging or has been full charged
Flashing rapidly	The device power lower than 20%
Flashing randomly	The device is on the move
<b>Power LED—BLUE LED</b>	
Light shows a single flash rapidly every 3 seconds	The device has GPS positioning fix
Light shows a slow flash every 3 seconds (every 1 second on and 3 seconds off)	The device has no GPS fix
No flashing	GPS chip is sleeping

### Activating an SOS Buddy Alarm

Press and hold the SOS Buddy button for 3 seconds and you will hear the beep sound, and then green light will start to flash rapidly to confirm the request. After that, an SOS Alarm "Help me!" will be sent to all authorized phone numbers and platform. In the meantime, it will dial 3 authorized numbers. The first number will take priority over the second, the third one. If the tracker fails connect to the first number, it will switch to the second one, In case the second number fail to be connected too, the system will connect to the third number etc., if device fail to call all 3 numbers, it will wait start to dial the numbers again after 5 minutes. This will go on and on until one of the mobile phone answer the call, then two ways communication starts.

- To end the call, press the SOS button.

### Making a Phone Call

To make a call, press and hold the call button (C1 authorized number) for 3 seconds and you will hear beep sound, green light will start to flash rapidly to confirm the request, and then it will dial the second number.

- To end the call, press the SOS button.

### How to adjust sound volume when in voice contact

Press the side button VOL+ (power button) and VOL-(call button) to adjust the volume when in two way voice communication.

### Low battery alarm

When device battery is lower than 20%, it will send a SMS alarm "BAT: LOW!" to all authorized numbers. If battery lowers than 15%, the red light will flash rapidly to warn the user to charge the device as soon as possible.

## Configuration and Operation by SMS

### ✓ To Set the Authorized Numbers

- ❖ It is not mandatory for all three of the authorized numbers to be set, however a minimum of one must always be set.
- ❖ ① **Command: A1 or A1,phone number**
  - Note: With no spaces in the text, case-insensitive.
  - Example: A1 or a1,123456789
- ❖ Using your mobile phone, send A1 to the phone number in the device, it will reply you a message: **Set mobile number 1 OK!**



- ❖ To delete this number, you can send **A0** to the tracker.
- ❖ ② **Command: B1 or B1,phone number**
  - Note: with no spaces in the text, case-insensitive
  - Example: B1 or b1,123456789
- ❖ The device will reply you a message: **Set mobile number 2 OK!**
- ❖ To delete this number, you can send **B0**
- ❖ ③ **Command: C1 or C1,phone number**
  - Note: with no spaces in the text, case-insensitive
  - Example: C1 or c1,123456789
- ❖ The device will reply you a message: **Set mobile number 3 OK!**
- ❖ To delete this number, you can send **C0**
- ❖ NOTE: if you want to use the side call button for two way communication you have to set C1

## 3. Modify the Time Zone

**Command: TZ+ +00/-00**

- ❖ **Note:** the time must amounts be in 2 digits and at maximum 23 hours in value. “+” in the “time zone” portion of the text indicates east. The symbol “-” in the “time zone” indicates west.
- ❖ **Example:**
  - **tz+02**, the system will add 2 hours based on the UTC time.
  - **tz-02**, the system will minus 2 hours based on the UTC time.
- ❖ UTC time has been set as default time.

## 4. User defined name in SMS content

**Command: name1, user name**

- ❖ **Example: name1,Emma**, the tracker will reply **“Add name ok!”**

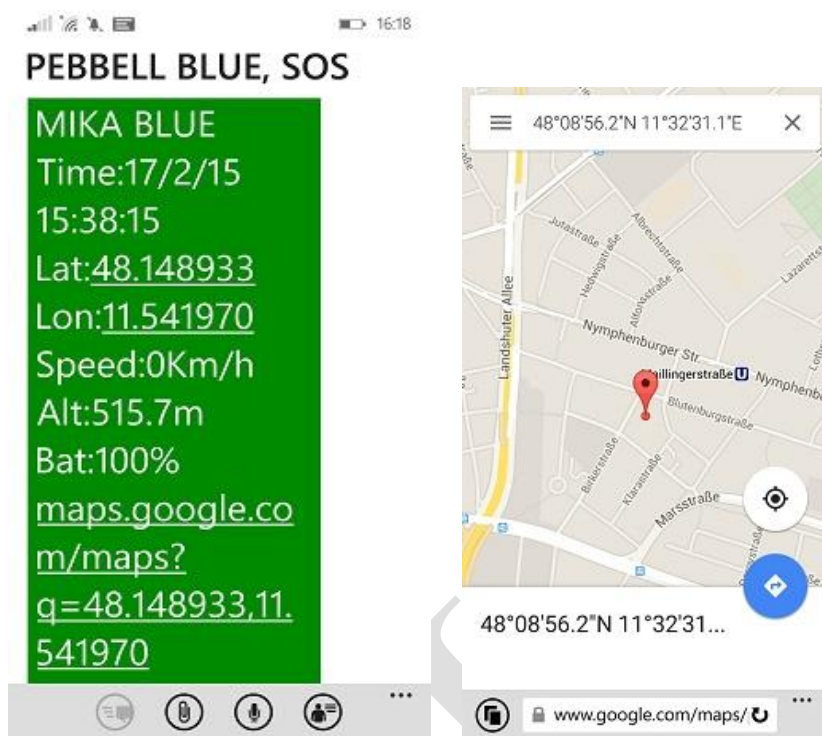
- To delete name, you can send **name0**

## 5. Location request

### 5.1 Reply with coordinates and web link

Command: **loc**

- ❖ The device will reply "GPS Info! Time: xxxxx; Lat: xxxx; Lon: xxxx; Spd: xxxxx, Altitude:xxxx Bt: xxx  
[maps.google.com/maps?q=loc:48.148933,11.541970](https://maps.google.com/maps?q=loc:48.148933,11.541970)
- ❖ Click on the link then the location can be shown directly on Google Map on your mobile phone.
- ❖ Put coordinates to Google earth or Google maps. Click on search button, then you will find the position fixed.



### 5.2 Reply with Address.

Command: **add**

**Notes:** This function needs GPRS function support!

The device will reply "Add: Elvirastrasse 11, 80636 Munchen, Germany"

## 6. Cell Locate

Command: **CL1**

The device will reply "Cell locate on!"

- To turn off this function, please send **CL0**

The unit can be tracked by GSM base station tower, If GPS signal is not available for example in room or underground, and then user can be located by GSM tower.

However, as compared to GPS satellite, GSM accuracy is proven to be worse than that of GPS. GSM provider utilizes triangulation techniques to try to pinpoint the location of the device, and GSM base station is further affected by factors similar to GPS in the sense of the barriers affecting signal quality and the density of GSM towers to assist in the triangulation effort, with some regional areas having errors of 100M-2KM!



## 7. GEO-FENCE Alarm

**Command:** G+X, Y, Z, xxxM/KM

**Example:** G1,1,1,100M

**Notes:** No space in between.

X=No. of Geo fence (1~3), user can set 3 Geo fences

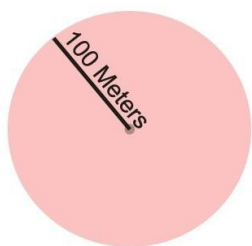
Y=0 means to turn off the function Y=1 means to turn on the function

Z=1 means to set alarm when the tracker enters the preset area

Z=0 means to set alarm when the tracker breaches the district

xxx is the preset distance to the tracker's original place, must be 3 digitals. M means meters, KM means kilometers

The device will send the message to the authorized numbers as "Geo fence alarm!+GPS info" when it **enter** the area you set. (User must set this function when tracker already fixed GPS signal)



- To turn off this function, please send **G1,0 or G2,0 or G3,0**

## 8. Over-Speed alert

**Command:** speed1,+ Speed

**Notes:** The speed must be in value of speed and in 2 or 3 digitals. (01~255km/h)

**Example:** speed1,100

Suppose the over-speed alert that we want to set is 100km/h, when the device moves exceeds 100km/h, it will send message "Over-speed! +GPS Info" to all preset numbers.

- To turn off this function, please send **speed0** to the device.

## 9. GPS signal lost and recovery alert:

**Command:** GR1

The device will automatically send the latest available GPS information to the preset numbers when it enters into the area without GPS signal. If user goes into an area that does not have a GPS signal, such as a tunnel, cave, parking garage, etc. – the device will know where user was 10 minutes before they went into such an area. This is critical! If a child goes missing – you'll be able to know the closest possible location before the GPS signal was lost. With any SMS sent during the period without GPS signal, the device will reply GPS information to preset numbers soonest as the GPS signal is covered.

- To turn off this function, please send **GR0**

## 10. Movement Alert:

**Command:** M1, xxxM/KM

**Notes:** xxx is the preset distance to the tracker's original place, must be 3 digitals. M means meters, KM means kilometers

**Example:** m1,100m

- When the tracker moves out of 100 meters, it will send SMS alarm to the preset numbers.

To turn off this function, please send **M0** to the device.



**11. Listen-in (Voice wiretapping):****Command: L1**

Only A1, B1, C1 number can make a silence call to the tracker, the track answers the call automatically and allows the caller to listen to what happens around the tracker. There is no voice indication that the call is in progress.

To turn off this function, please send **L0** to the device.

**12. Vibration alarm:****Command: V1, xx S/M/H**

**Note:** No space in between, S means second, M means minute, H means hour, xx means the time you set and must be two digitals.

**Example: V1,05M**

If user turns on this function, device will detect motion every 5 minutes and will send SMS alarm to all registered phone numbers for warning.

- To turn off this function, please send **V0**

**13. Shut down 3 LEDs:****Command: LED1**

The device will reply "LED off" and later LEDs will stop flashing, but device is actually running.

To turn off this function, please send **LED0**

**14. AGPS****Command: AGPS1**

A-GPS is for accelerated positioning and helping position a device when GPS signals are weak or not available. GPS satellite signals may be impeded by tall buildings, and do not penetrate building interiors well. A-GPS uses proximity to cellular towers to calculate position when GPS signals are not available.

- To turn off this function, please send **AGPS0**

**14.1 AGPS with known position****Command: AGPS1, latitude, longitude****Example: AGPS1,48.148899,11.542254**

Assisted GPS (abbreviated generally as A-GPS) is a system that is often able to significantly improve the startup performance or time-to-first-fix (TTFF) and improve the GPS locating to be more precise, of a GPS satellite-based positioning system

- To turn off this function, please send **AGPS0**

**15. Fall detection****Command: FL1 or FL2 or FL3 or FL4 or FL5 or FL6 or FL7 or FL8 or FL9**

1 means very high sensitive, 2 means high sensitive, 3 means medium high sensitive, 4 means medium sensitive, 5 means medium sensitive low till the 9 means very low sensitive

Device must senses both impact and angle, after that, device must remain in a lying position after 10 seconds, it will raise alarm

A simple fall may cause a devastating consequence. A Fall Sensor can help you get immediate help without missing any important moment.

- To turn off this function, please send **FLO**

## 16. Check settings:

**Command:** **status**

The device will reply E.g. **A+8613812345678 B13912345678 C13712345678; Spd: 0,100km/h; Geo:0,0,0; VB:1,10S; MV:1,100; LBS:1; LED:0; RCV:0; TZ:2.0; Lis-in: 1; PS:1; DS:0; FL:1; Bat: 95**

### To recognize the meaning of "0" & "1"

The number "0" implies that the function is turned off; whilst "1" indicates that the function is turned on.

## 17. Device three working modes

### 17.1. No Power saving mode

**Command:** **PS0**

In this mode, Both GSM and GPS chip will keep working to fix signal all the time. Battery can last 18~36 hours.

### 17.2 Smart Power saving mode

**Command:** **PS1**

Device built-in motion sensor. Under this mode, GSM chip always on, GPS chip activates by motion or incoming call or SMS, GPS chip off when it's no motion or calling or SMS. You won't waste any battery life when device isn't moving.

- Under normal use, battery can last 4 ~ 10 days.
- To turn off this function, please send **PS0**

### 17.3 Deep Sleeping mode

**Command:** **DS1**

Both GSM and GPS chip will be off to save power, it can be only activated by motion sensor. Once it activated by motion, it will running for 15 minutes and sleep again if no motion detected.

- Battery can last 40 days if no motion at all.
- To turn off this function, please send **DS0**

## 18. SOS Button

Once the SOS button is pressed for 3 seconds, the GSM light will dim for 2 times and SOS Alarm "Help me! + GPS info!" will be sent to the authorized phone number and Website. In the meantime, it will dial 3 authorized numbers every 30 seconds. The first number will take priority over the second, the third one. If the tracker fails connect to the first number, it will switch to the second one, In case the second number fail to be connected too, the system will connect to the third number etc., this will go on and on until one of the telephone pick up, then two ways communication starts.

## 19. Call Button

Press Call button for 3 seconds, the GSM light will dim for 2 times and the tracker will dial the third (C1) number.

## 22. How to adjust Sound Volume:

Pressing the side button VOL+ /VOL- to adjust the volume when in two way voice communication.

## 23. Low battery alarm:

**Note:** When the tracker's battery is lower than 20%, it will send a SMS alarm "BAT: LOW! + GPS INFO" to all preset numbers.

**Pebbell Real time tracking on [www.smart-tracking.com](http://www.smart-tracking.com)**

Our web based tracking system incorporates the TCP/IP protocol and allows users to monitor it in real time over the internet or sends an e-mail to the predefined e-mail address.

**How to connect device to the platform for real time tracking via GPRS****24.1 GPRS Settings:**

In order to use the GPRS function, the user needs to setup the APN by sending SMS command.

--What is APN? Access point name (APN) is the name used to identify a general packet radio service (GPRS) bearer service in the GSM mobile network. The APN defines the type of service that is provided in the packet data connection.

※ Make sure that the SIM card in the tracker supports the GPRS function.

※ The APN can be acquired from your local GSM operators.

**Command: S1, APN, user name, password**

**Notes:** Some access point name without user name and password, so please leave it blank.

**HoIP Telecom Example: S1,mobiledata**

"mobiledata" is the APN from the SIM card provider; therefore the user must set their particular APN for their own country which the unit resides.

After sending the command, the device will reply "Set APN OK! GPRS connecting"

**24.2 Disable GPRS:**

**Command: S0**

The device will reply "GPRS OFF".

**24.3 Reconnect GPRS**

Reconnect the website via GPRS for real time tracking, please send **S2**

**24.4 Set GPRS Time interval by SMS**

**Command: T1xxS/M/H**

**The meaning of "xx",** The setting must be in 2 digitals and maximum 99 in value, which means 01~99.

xxS is the time interval in second with range(30~99)

xxM is the time interval in minute with range(01~99)

xxH is the time interval in hour with range(01~99)

**Example: T101M**

The device will reply "Set updating time interval OK!" and then device will update the time by every 1 minute on the website.

**24.5 Check APN & VPN or IP**

**Command: G1**

The device will reply "APN: internet; Name: xxx; Password: xxxx; Port: 5050; VPN or IP:www.smart-tracking.com"

**25. Get IMEI/Version number**

**Command: version**

The device will reply" IMEI: xxxx; GSM CSQ:xxxx; Soft:V07.20.10.1345"

**26. Change IP and Port:**

**Command: IP1,IP,port**

**Example: IP1,103.21.211.11,5050**

**27. Reboot Device:**

**Command: reboot**

The device will restart itself without changing any settings.

**28. Initialization:**

**Command: RESET!**

Note: This is to make all settings back to the factory default.

**29. Built-in Memory**

The device built in 8MB flash memory inside. It will store the GPS information when do not have GSM network coverage (i.e., very low population density areas, some mountainous terrain, underground areas etc). The device will transmit GPS locations to the WEB server automatically once the GSM network is recovered.

**Cautions:**

Please comply with the instructions to extend the unit life:

1. Keep the unit dry. Any liquid may destroy or damage the inside circuitry.
2. Don't use & store the unit in dusty places.
3. Don't put the unit in overheated or overcooled places.
4. Clear the unit with a piece of dry cloth. Don't clean in chemicals, detergent.
5. Don't disassemble or refit the unit.
6. Using other batteries will cause unwanted situation

**Hardware Specification:**

Content	Specs.
Mainframe Dimension	61mm*44mm*16mm
Weight	35g
GSM Frequencies	900/1800mhz or 850/1900Mhz
GPS chip	U-blox 7 (Support AGPS)
GPS sensitivity	Cold start: -148dBm Hot start: -162dBm
GPS accuracy	<2.5m
Time to First Fix	Cold start 32s, Warm start 11s, Hot start 1s
Charging Voltage	5V DC
Battery	Chargeable 3.7V 900mAh
Standby Current	≤2mAh

Storage Temperature	-40°C to +85°C
Operation Temperature	-20°C to +80°C
Humidity	5%-95% non-condensing

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