

# USER GUIDE

minifinder pico



## 1. Product Overview

Thank you for buying MiniFinder Pico. This mini-sized device is created on latest positioning technology such as built-in u-Blox GPS chipset and SIMCOMM GSM/GPRS technology. Popular purpose is monitoring and protecting of valuables, lone workers, children, elderly, people with dementia disease and others.

### Latest technology and design

- Unique design, combination of style and usability
- Supports A-GPS for accelerated positioning
- Supports GPS and Cellular tracking
- Two way voice communications
- Emergency alarm button
- Fall detection via 3D G-sensor
- Built-in 8MB flash memory
- GPRS blind area data re-upload function

## 2. Getting Start

### 2.1 Hardware and Accessories

Product box includes:

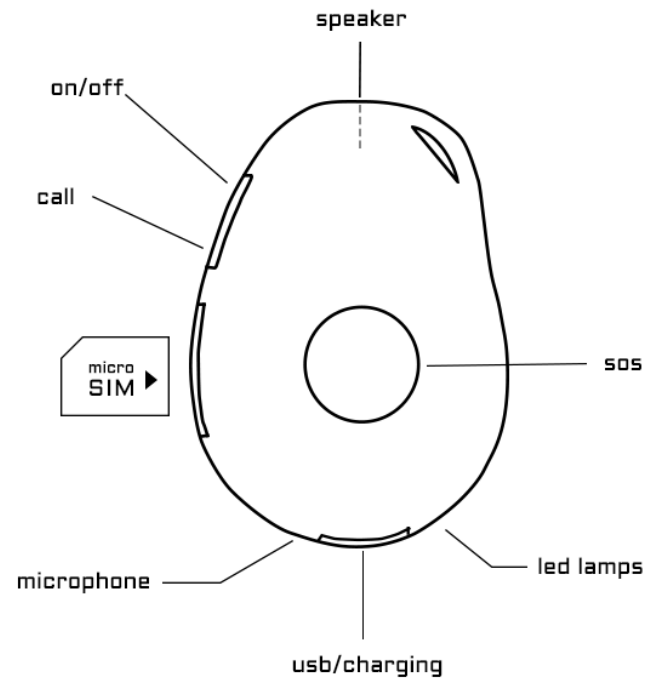


Device



USB-cable

### 2.2 Product overview



## 2.3 Hardware Functions

<b>GREEN LED</b>	
The device is connected to GSM network	Flashing every 0.2 second on and 3 seconds off
The device is connected to GPRS network	Flashing two times fast and 3 seconds off
The device is not connected to GSM network	Flashing every 1 second on and 3 seconds off
Without SIM card	GSM LED Solid
<b>BLUE LED</b>	
The device has GPS positioning fix	Flashing every 0.2 seconds on and 3 seconds off
The device has GSM positioning fix	Flashing every 1 second on and 3 seconds off
The device has no GPS fix	Flashing every 2 seconds on and 3 seconds off
GPS chip sleeping	No flashing
<b>RED LED</b>	
Solid	The device is charging
OFF	The device is off or has been full charged
Flashing randomly	The device is on the move
<b>Buttons</b>	
Power On/Off button	To turn on/off the device, press and hold for 3 seconds. LED lamps will start blinking.
SOS button	When pressed fast 3 times, it will send SMS alarm to all numbers and call the numbers.
Call button	When pressed for 3 seconds, It will start to call the B1 number
<b>Other Connectors</b>	
Micro USB	Used for charging and firmware upgrade
Microphone	Used for listen in and voice communication
Speaker	Used for Two way voice communication

## Usage

- For the first time, please fully charge the battery for about 8 hours.
- When charging, the Power LED will be ON (solid). After fully charged, the power LED will be off.
- Insert an activated Micro SIM card and turn on the unit by pressing the on/off button for 3 seconds.
- Please keep the unit under the open sky or close the window to be able to get a fix on the satellites.

## 3. Setup 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.

Set up the 3 authorized mobile phone numbers to track the unit.

### ① Command: **A1**

**Note:** With no spaces in the text, case-insensitive.

※ Using your mobile phone, send A1 to the SIM card phone number in the device, it will reply you a message: **·Set mobile number 1 OK!**

※ To delete this number from stored memory, you can send **A0** to the tracker.

### ② Command: **B1**

The device will reply you a message: **·Set mobile number 2 OK!**

※ To delete this number from stored memory, you can send **B0**

### ③ Command: **C1**

The device will reply you a message: **·Set mobile number 3 OK!**

※ To delete this number from stored memory, you can send **C0**

## 4. 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.

## 5. User defined name in SMS

**Command:** NAME1, name

**Example:** NAME1,Emma, the tracker will reply “Add name ok!”

※ To delete name, you can send NAME0

## 6. Location request

### 6.1 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: 59.325783,18.077954](https://maps.google.com/maps?q=loc:59.325783,18.077954)

※Put coordinates to Google earth or Google maps. Click on search button, then you will find the position fixed.

※Click on the link then the location can be shown directly on Google Map on your mobile phone.

## 6.2 Reply with Address.

**Command:** **ADD**

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

The device will reply "Add: Storgatan 35, Stockholm, Sweden;"

## 7. Cell Locate

⊗The unit can be tracked by GSM base station tower, If GPS signal is not available for example in room, underground etc, 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!

**Command:** **CL1**

The device will reply "Cell locate on!"

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

## 8. 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

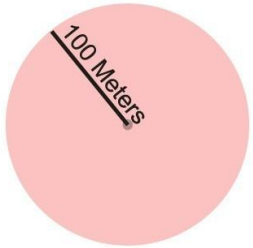
**Z**=1 means to set alarm when the tracker enters the preset area

**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**

## 9. 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.

## 10. 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**



## 11. 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.

## 12. Listen-in

**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.

## 13. 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

## 14. Switch off LED lights

**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

## 15. 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**

## 16. Fall detection

**Command: FL1**

Device will reply “fall detection on” and will send alarm to all registered phone numbers if detect fall.

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**

## 17. 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 its 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**

## 18. 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**

## 19. Check preset mobile phone numbers & status

Command: **STATUS**

The device will reply E.g. A+4673812345678 B73912345678 C73712345678; 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.

## 20. SOS Button

Once the SOS button is pressed 3 times under 2 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 mean time, 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.

## 21. Call Button

Press Call button for 3 seconds, the GSM light will dim for 2 times and the tracker will dial the first 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.

## 24. Real time tracking via www.tracktor.se

Our web based tracking system incorporates the TCP/IP protocol and allows users to monitor it in real time over the internet via computer or cell phone.

### 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.

**Example: S1,internet**

“internet” 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: TlxxS/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: 20790; VPN or IP:www.tracktor.se”

## 25. Get IMEI and Version number

**Command: VERSION**

The device will reply” IMEI: xxxx; GSM CSQ:xxxx; Soft: V072.4601.1435”

## 26. Change IP and Port

**Command: IP1,IP,port**

**Example: IP1,111.22.33.11,20790**

## 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. Do not use & store the unit in dusty places.
3. Do not 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. Do not disassemble or refit the unit.

**Technical specification:**

<b>Content</b>	<b>Specification</b>
Mainframe Dimension	60mm*41mm*16mm
Weight	35g
GSM Frequencies	900/1800mhz or 850/1900Mhz
GPS chip	U-blox 7 (Made in Switzerland)
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