EV-04 Personal Mobile Alarm System Reference Manual

EV-04_RM_EN_V1.1_ 2021.12

en Reference Manual

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1 General description

1.1 Used warnings and symbols

Depending on the hazard level, the warnings and notes used in this manual have the following meaning:

NOTICE
Means that damage to the equipment or an undesired condition may occur if the recommended precautions are not taken.

INFO
General notes and additional information.

1.2 Presentation of the whole system

The EV-04 is an advanced personal emergency location device, for the elderly, disabled, or lone worker, keeping families connected with tracking information and voice functionality.

It supports various 4G bands and falls back to 3G/2G when there is no 4G coverage. When pressing the SOS button, the EV-04 sends an SMS message to the first recipient with complete location details. Then, a hands-free call takes place. If the recipient does not answer the call, the device will proceed with the next recipient set in the call sequence.

Up to 10 recipients can be defined.

A built-in 3D G-sensor can be used to trigger a “no movement alarm” or a “fall alarm”.

1.3 EV-04 Personal Mobile Alarm System – Setup

Warning:
Remove the SIM card password beforehand, using a mobile phone.

1. Insert the nano SIM card into the EV-04.
2. Connect the charging base DS3 to your computer by USB.
3. Place the EV-04 on the charging base DS3.
4. Open the ParamEdit software.
5. Click ‘Open EVD’.
6. Click ‘Read All’.
7. Set the parameters you want – see below ’ParamEdit software’ information.
8. Click ‘Save All’.
9. Click ‘Close EVD’.

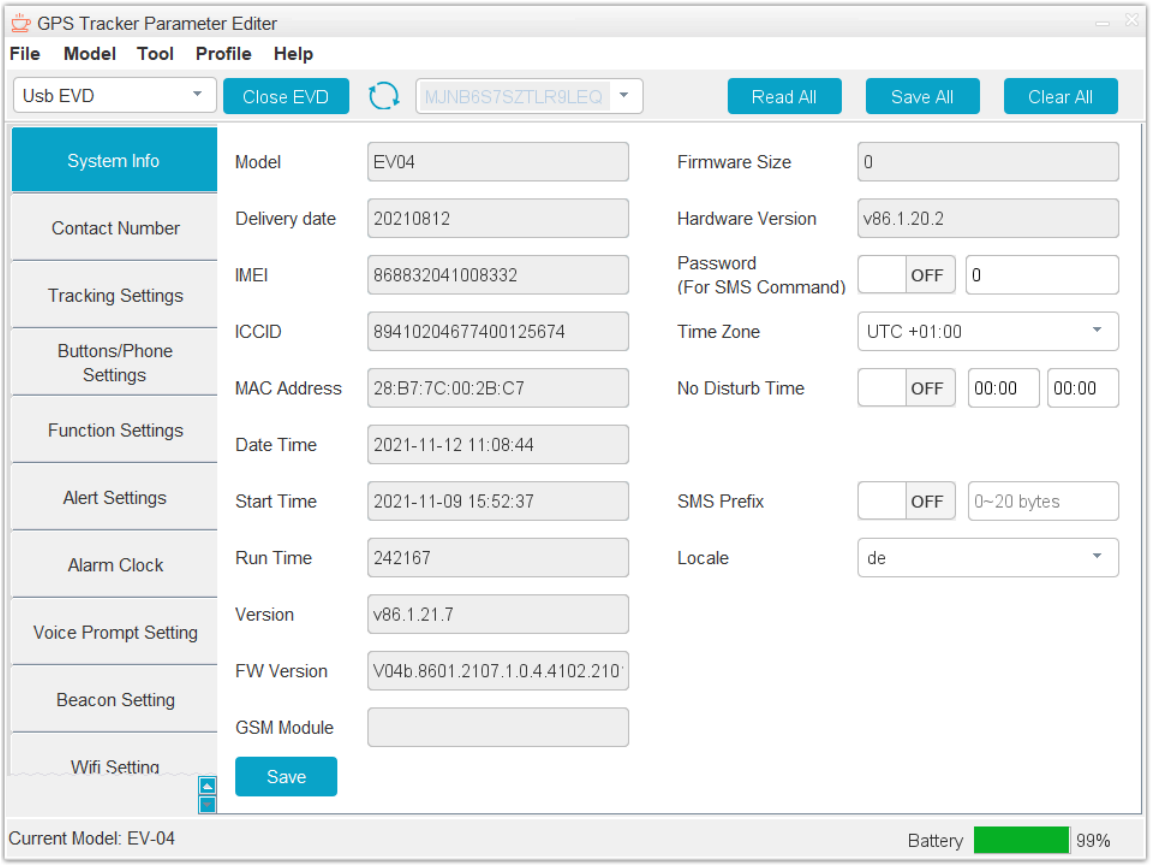
1.4 Charging base DS3 – Setup

(to use it as an indoor beacon for indoor location)

1. Connect the charging base DS3 to its power supply.
2. Place the set-up EV-04 on the charging base DS3.
3. Set geographical coordinates of the charging base DS3.
   - Define the exact location using a mobile phone GPS.
   - Send the following SMS to the EV-04: BL<Latitude>,<Longitude> (e.g. BL47.105635,6.834498)
   - The EV-04 replies “Set BLE location ok”.

2 ParamEdit software

2.1 “System Info” tab



Password (for SMS Command)
Set this parameter to ON and define a password to protect the unit against unwanted modification.

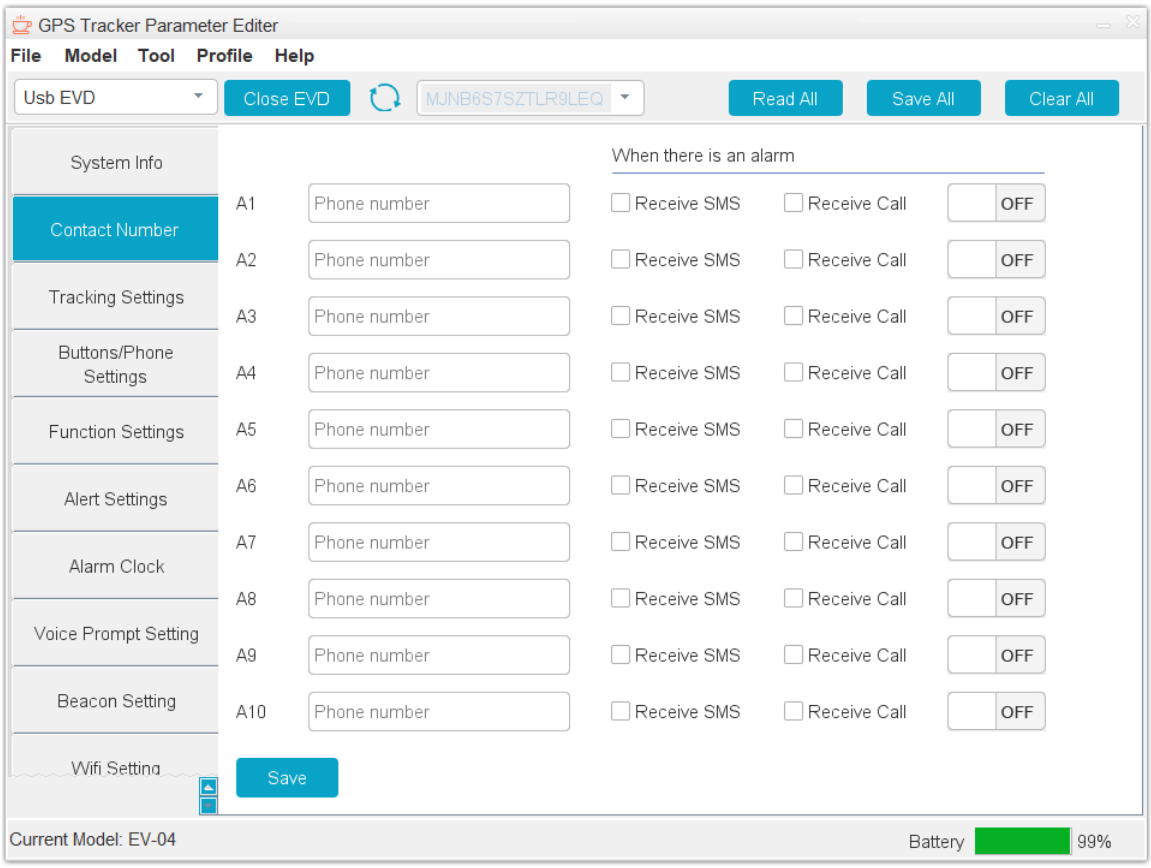
Time Zone
Set the current local time. E.g. Central European Time (CET: UTC+01:00), Western European Time (WET: UTC00:00).

No Disturb Time
This function prevents the unit from making sounds during a specific period.

SMS Prefix
This function provides the option to add further info to the SMS head message.

Locale
Allow the user to select the synthetic voice language.

2.2 “Contact Number” tab



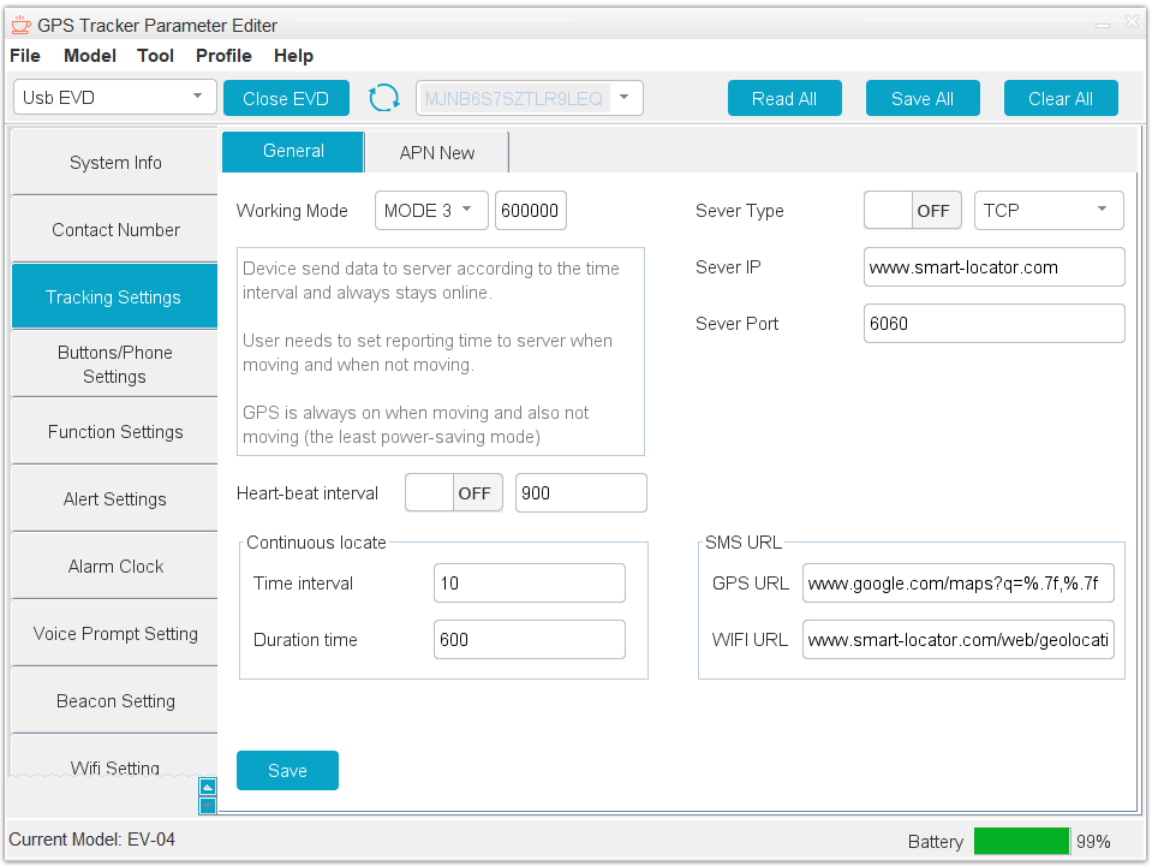
A1 to A10
Call up to 10 recipients.

Receive SMS
Select to receive SMS messages.

Receive Call
Select to receive phone calls.

Switch
Turn on to activate the recipient.

2.3 “Tracking Settings” tab



The information “Unit: S/M/H” must be set in seconds.

Working Mode
To select tracking mode.

- **Mode 1 – Energy saving mode:** The device only sends data to the server and enables the GPS/WiFi/BLE when an event occurs (e.g. alarm). No need to set time interval.

- **Mode 2 – Standard tracking:** The device only sends data to the server according to the defined time interval and always stays online. The user needs to set the reporting time to the server for when the device is moving and not moving. GPS/WiFi/BLE are enabled when the device is moving and disabled when not moving. The GPS is woken up and the position is updated only when it needs to send data to the server, or when an alarm needs to be transmitted.

- **Mode 3 – Full tracking:** The device sends data to the server according to the defined time interval and always stays online. The user needs to set this interval. GPS is always enabled.

- **Mode 4 – Data savings:** The device connects the server only at a defined time interval. The user needs to set reporting time to the server. GPS/WiFi/BLE are only enabled when data are sent.

- **Mode 5 – Mobile off:** The device connects the server at a defined time interval and between each interval the mobile phone is offline. The user needs to set this interval. GPS is only enabled when data are sent. During offline periods, the device is unable to receive calls and text message. GPS/WiFi/BLE are only enabled when data are sent.

- **Mode 6 – Enhanced tracking:** Same as mode 2 with improved tracking performance. As soon as motion is detected, the GPS is woken up and its position is thereafter continuously updated. Which saves time when the position has to be transmitted.

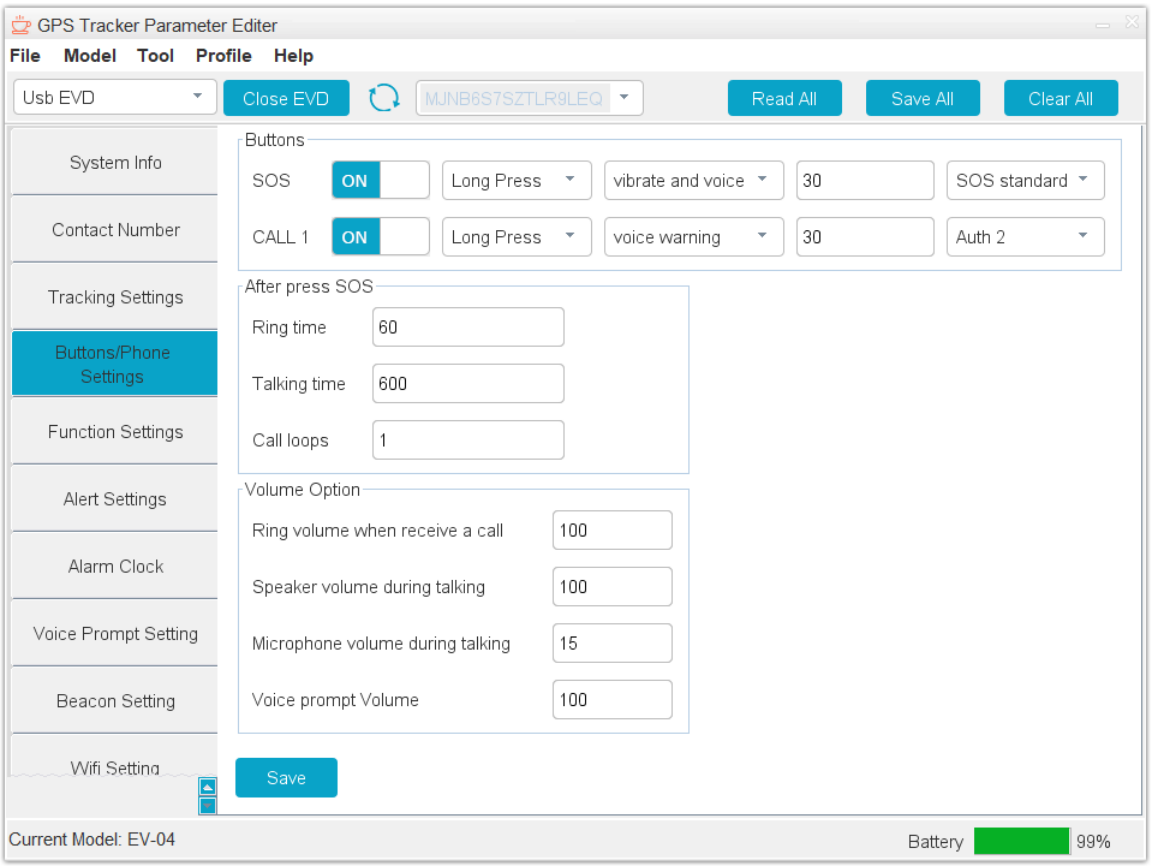
Heartbeat interval
To check the server connection at regular interval (only applicable for modes 1, 2 and 3). Value range: 60 to 86,400 seconds. The heartbeat packet function is used to keep the Transmission Control Protocol (TCP) connection open when the interval of scheduled GPRS reporting is long.

Continuous locate
Continuous locate is only activated when an alarm is triggered, such as the SOS alarm or fall alarms. After the defined duration time is finished, the unit goes back to normal working mode. For example, if the time interval is set to 10 seconds, and the duration time is set to 300 seconds, then the device will keep sending reports every 10 seconds to the “server IP” defined on the same page, for a period of 300 seconds.

Server
If a specific server is used, it can be set here.

SMS URL
SMS message link format. No changes are necessary.

2.4 “Buttons/Phone Settings” tab



The information “Press Unit: 0.1s” must be set in tenths of a second.
The information “Unit: S/M/H” must be set in seconds.

Buttons
Define “SOS” and “CALL 1” buttons behaviour.

1. Enable or disable.
2. Long press or double click.
3. Synthetic voice and/or vibration.
4. Long press time/double click time (e.g. 30 means long press 3 seconds or double click within a period of 3 seconds to activate).
5. Call sequence (SOS standard)/single recipient (Auth 1 … Auth 10).

"After press SOS"

Ring time: The time that passes from the time an outgoing call is initiated until the called party answers the call. After this time, if the recipient did not answer, the device will call the next recipient.

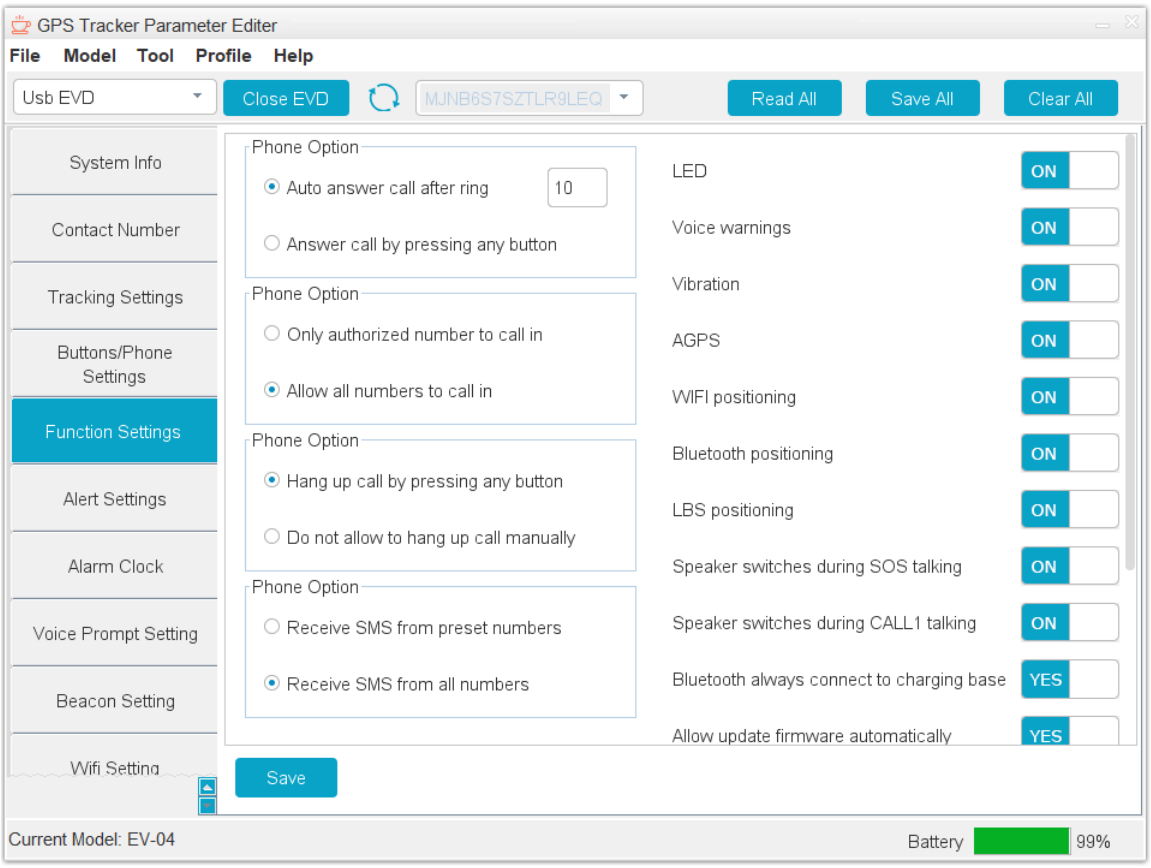
Talking time: The time that can be spent talking with the recipient. After this time, the device will call the next recipient.

Call loop: Number of call sequence repetition.

Volume option

Values higher than 150 are not recommended.

2.5 “Functions Settings” tab



Phone Option

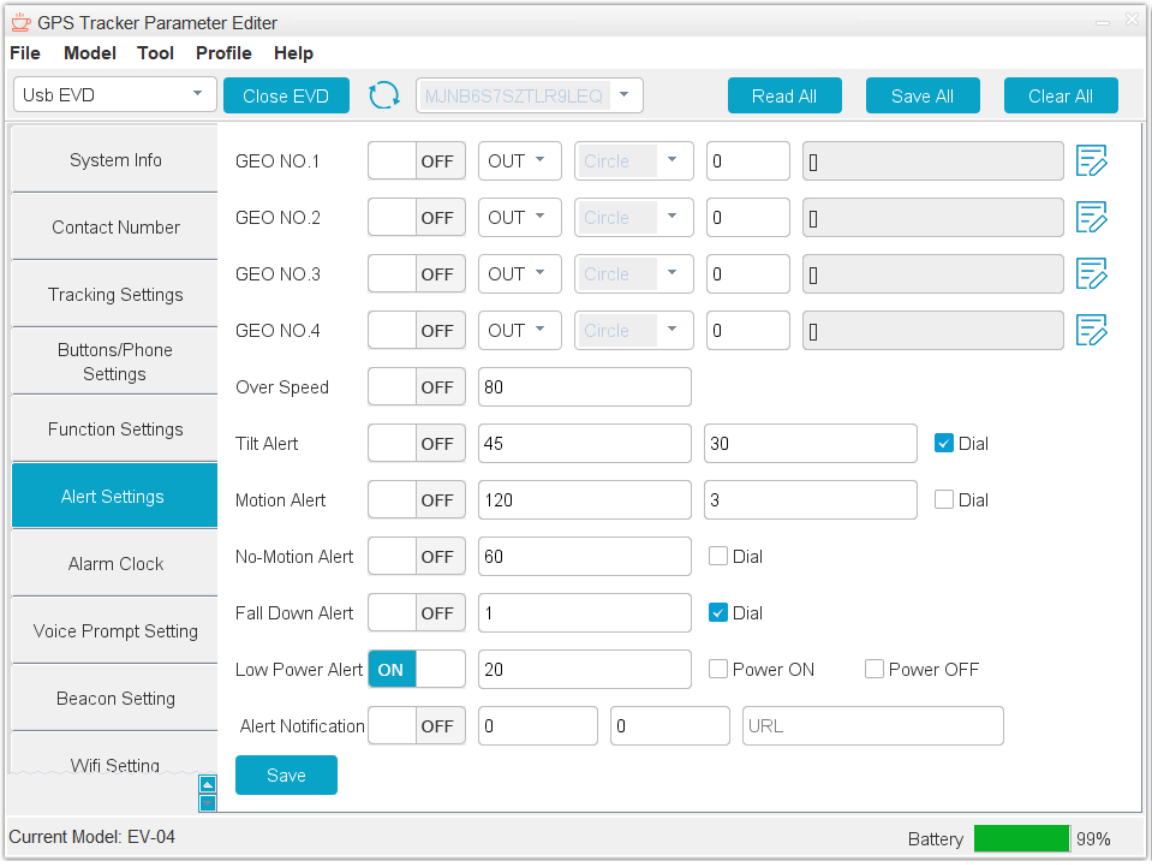
Define the phone behaviour.

1. How to answer incoming calls.
2. Which numbers are allowed to call in (authorized numbers means the numbers defined in the “Contact Number” tab).
3. How to hang up.
4. SMS from which numbers are allowed to setup the device (preset numbers means the numbers defined in the “Contact Number” tab).

General options

1. **LED:** Switch the LED on/off.
2. **Voice warnings:** Enable/disable the synthetic voice.
3. **Vibration:** Enable/disable the vibrations.
4. **AGPS:** Allow usage of Assisted Global Positioning System, which takes assistance from mobile towers in order to reduce the time to fix position.
5. **WiFi positioning:** Allow usage of geolocation system that uses the characteristics of nearby WiFi hotspots and other wireless access points to discover where the device is located.
6. **Bluetooth positioning:** Allow usage of Bluetooth locator beacons, like the charging base DS3.
7. **LBS positioning:** Allow usage of Location-Based Service which is a tracking system that uses mobile phone signal.
8. **Speaker switches during SOS talking:** Allow the usage of the device speaker during an SOS alarm (SOS button). ON=two way calling, OFF=Speaker off.
9. **Speaker switches during CALL 1 talking:** Allow the usage of the device speaker during a phone call (CALL button). ON=two way calling, OFF=Speaker off.
10. **Bluetooth always connect to charging base:** When the Bluetooth disconnects for whatever reason, it automatically reconnects when the connection is available again.
11. **Allow update firmware automatically:** Self-explanatory.
12. **Beacon:** For indoor location via BLE connection between the device and the beacon. The beacon is a tiny wireless device broadcasting BLE signal 24/7. See “Beacon Setting” tab.
13. **Home WiFi positioning:** For location via WiFi connection. See “Home WiFi” tab.
14. **Long SMS:** When an SMS sent to the EV-04 is too long, some SIM cards do not support it, so the message is split into two SMS. In that case, please turn on "long SMS" to solve this issue.
15. **LT:** Deactivated in the TeleAlarm EV-04 to protect yourself from unethical or illegal spying.

2.6 “Alert Settings” tab



Geo-fence (GEO NO.1 to GEO NO.4)
Define a virtual geographic boundary that enables the device to trigger an alarm when it enters or leaves a particular area.

Over Speed
Alert when the speed is higher than a certain value.

Tilt Alert
Alert when the device is tilted more than a defined tilt, at least for a defined time.

Motion Alert
Alert if no motion is detected over a defined period and that the device is moving again, at least for the defined time.

No-Motion Alert
Alert if no motion is detected over a defined period.

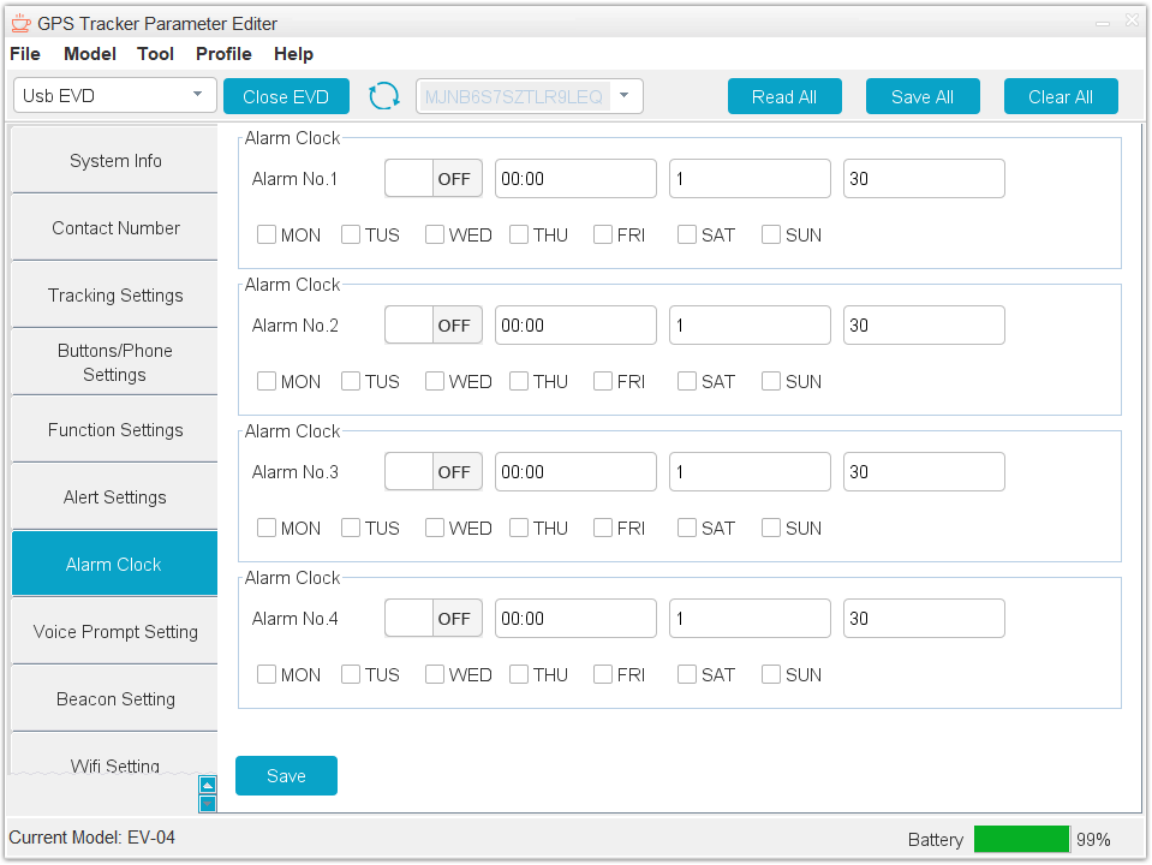
Fall Down Alert
Alert if a fall is detected. Sensibility from 1 to 9.

Low Power Alert
Alert when power is less than a defined percentage.

Power ON
Alert when power on.

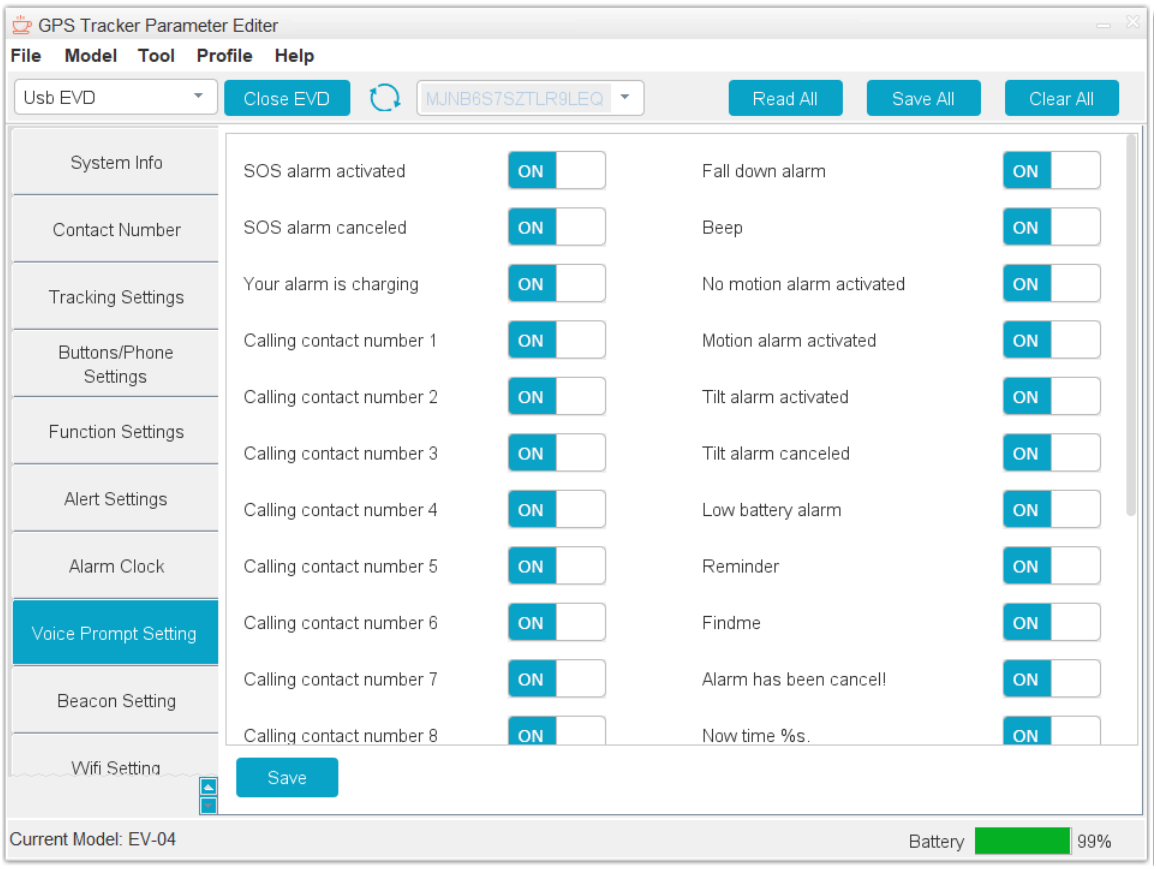
Power OFF
Alert when power off.

2.7 “Alarm Clock” tab



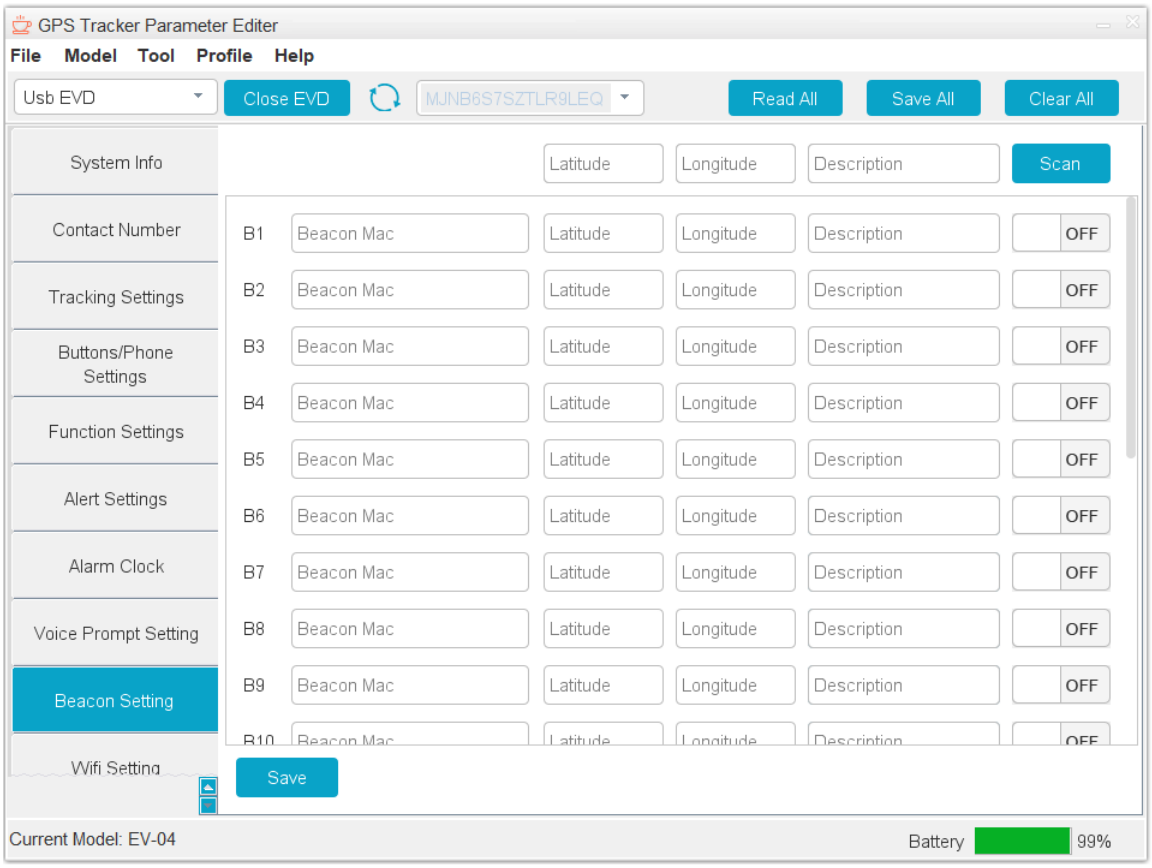
This function can be used to set reminders (local alarms) at a certain time with a specific ring tone.

2.8 “Voice Prompt Setting” tab



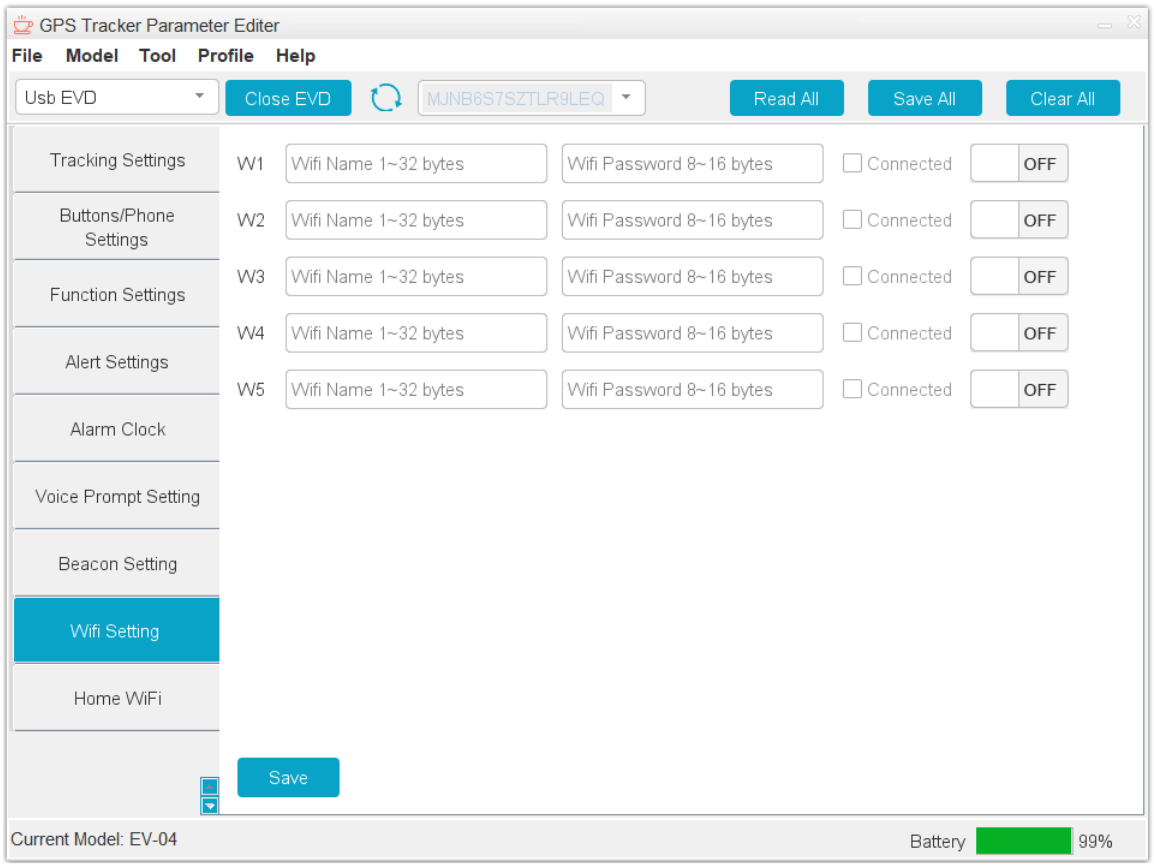
To enable/disable synthetic voice messages.

2.9 “Beacon Setting” tab



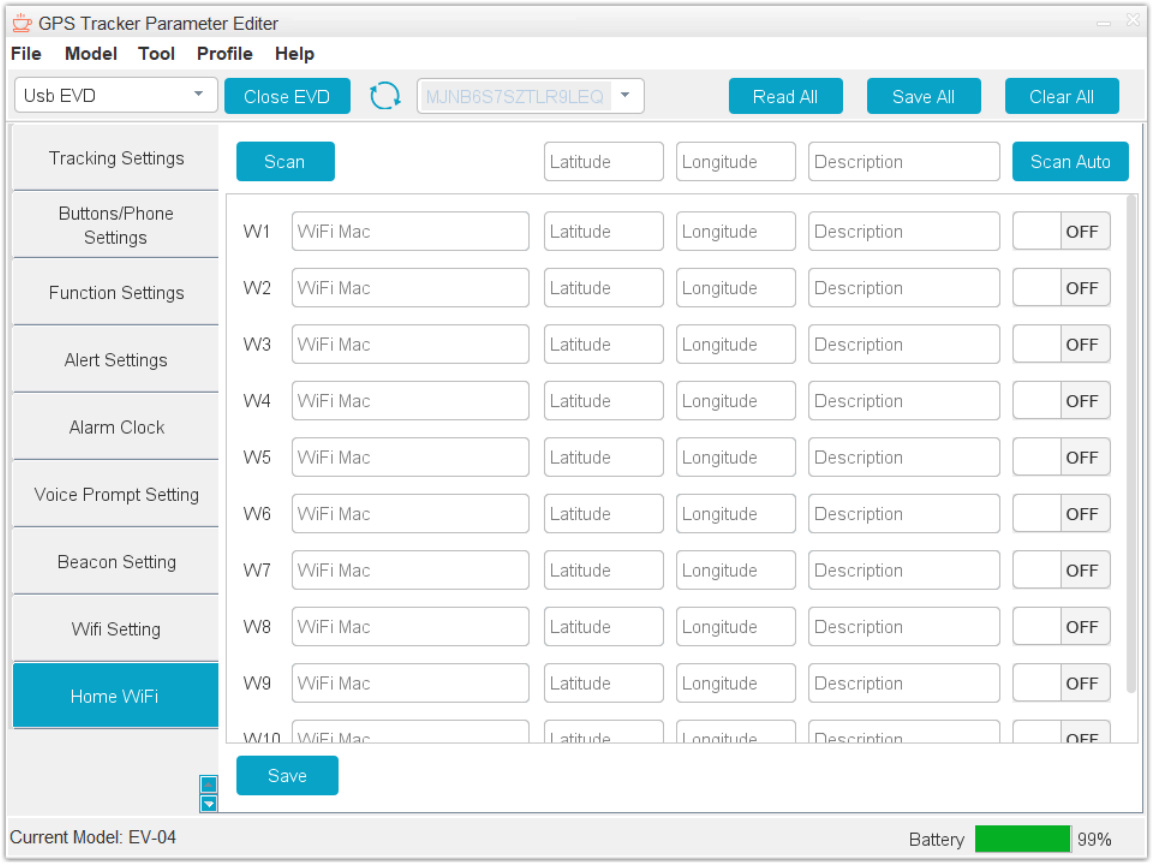
This function can be used to define the location of the beacons. The "Scan" button helps to search for beacons.

2.10 “WiFi Setting” tab



This function can be used to connect the EV-04 to home WiFi. When connected, the device automatically switches off its GPS, for energy-saving purposes.

2.11 “Home WiFi” tab



To use WiFi as a beacon.

- ► Use the Scan button (not “Scan auto” – if “Scan auto” has been used, clear the data, and save).
- ► Scan, select a WiFi and click Add.
- ► Enter the geographical coordinate definition (latitude and longitude) and save.

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