

EV-04 Personal Mobile Alarm System 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.

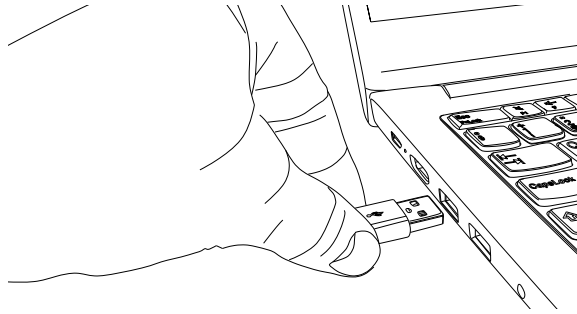
Up to 10 recipients can be defined.

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

The screenshot shows the 'GPS Tracker Parameter Editor' window. The 'System Info' tab is selected in the left sidebar. The main area displays the following parameters and values:

Parameter	Value
Model	EV04
Delivery date	20210812
IMEI	868832041008332
ICCID	89410204677400125674
MAC Address	28:B7:7C:00:2B:C7
Date Time	2021-11-12 11:08:44
Start Time	2021-11-09 15:52:37
Run Time	242167
Version	v86.1.21.7
FW Version	V04b.8601.2107.1.0.4.4102.210
GSM Module	
Firmware Size	0
Hardware Version	v86.1.20.2
Password (For SMS Command)	OFF 0
Time Zone	UTC +01:00
No Disturb Time	OFF 00:00 00:00
SMS Prefix	OFF 0~20 bytes
Locale	de

At the bottom of the window, it shows 'Current Model: EV-04' and a battery level indicator at 99%.

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

System Info	When there is an alarm		
Contact Number	A1	Phone number	<input type="checkbox"/> Receive SMS <input type="checkbox"/> Receive Call <input type="checkbox"/> OFF
	A2	Phone number	<input type="checkbox"/> Receive SMS <input type="checkbox"/> Receive Call <input type="checkbox"/> OFF
Tracking Settings	A3	Phone number	<input type="checkbox"/> Receive SMS <input type="checkbox"/> Receive Call <input type="checkbox"/> OFF
Buttons/Phone Settings	A4	Phone number	<input type="checkbox"/> Receive SMS <input type="checkbox"/> Receive Call <input type="checkbox"/> OFF
Function Settings	A5	Phone number	<input type="checkbox"/> Receive SMS <input type="checkbox"/> Receive Call <input type="checkbox"/> OFF
Alert Settings	A6	Phone number	<input type="checkbox"/> Receive SMS <input type="checkbox"/> Receive Call <input type="checkbox"/> OFF
Alarm Clock	A7	Phone number	<input type="checkbox"/> Receive SMS <input type="checkbox"/> Receive Call <input type="checkbox"/> OFF
	A8	Phone number	<input type="checkbox"/> Receive SMS <input type="checkbox"/> Receive Call <input type="checkbox"/> OFF
Voice Prompt Setting	A9	Phone number	<input type="checkbox"/> Receive SMS <input type="checkbox"/> Receive Call <input type="checkbox"/> OFF
Beacon Setting	A10	Phone number	<input type="checkbox"/> Receive SMS <input type="checkbox"/> Receive Call <input type="checkbox"/> OFF
Wifi Setting			

Current Model: EV-04 Battery 99%

A1 to A10

Call up to 10 recipients.

Receive SMS

Select to receive SMS messages.

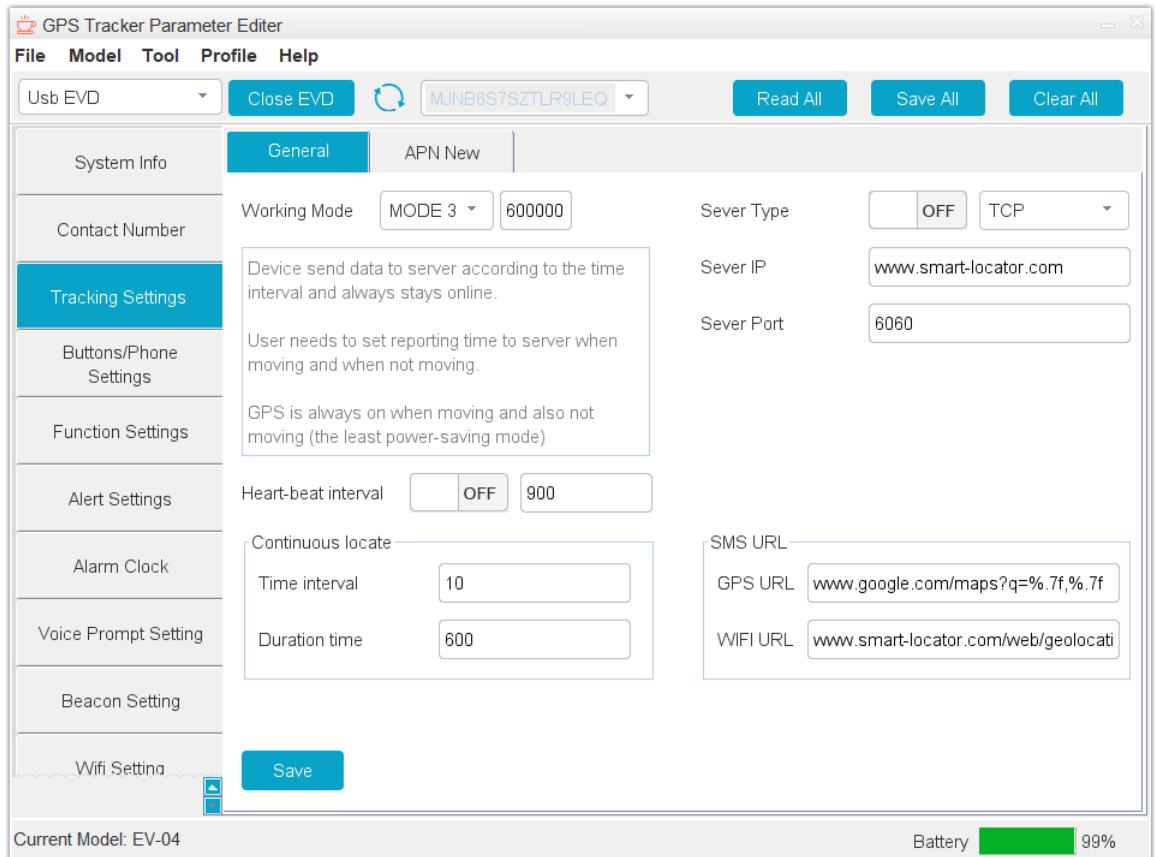
Receive Call

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.

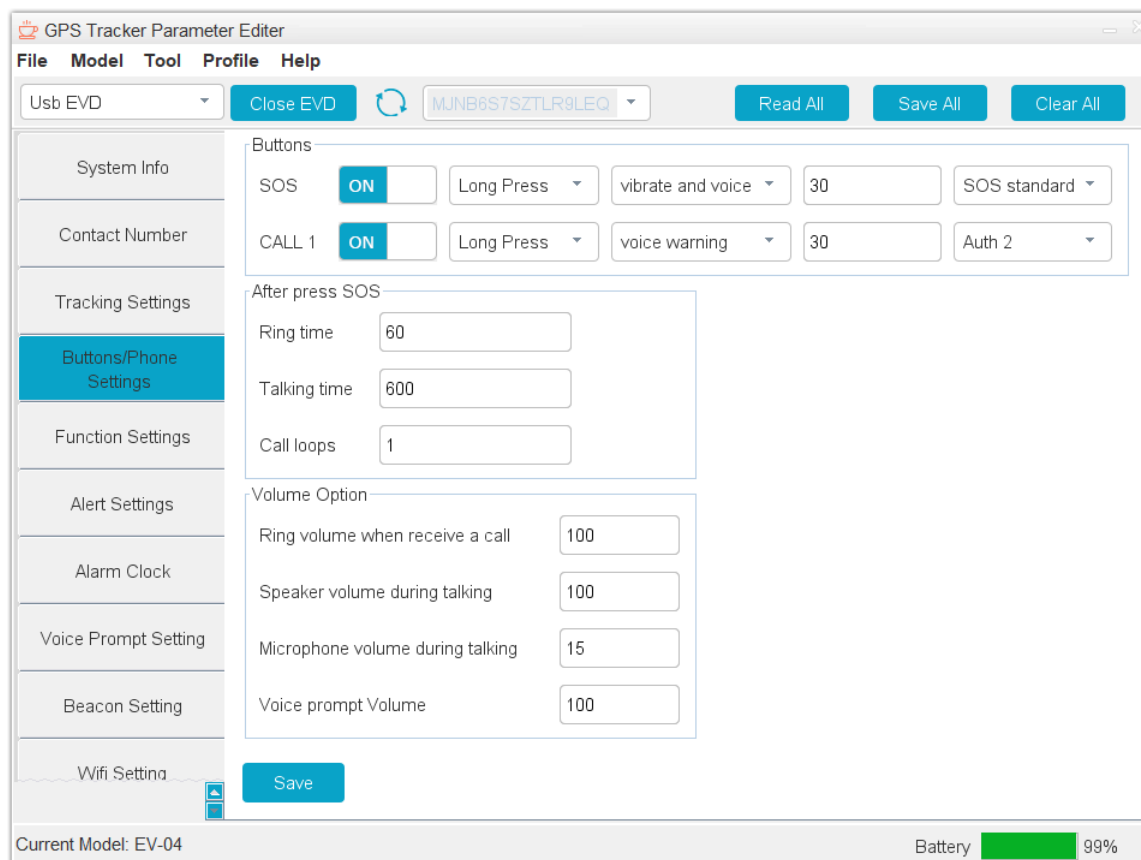
Server

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.

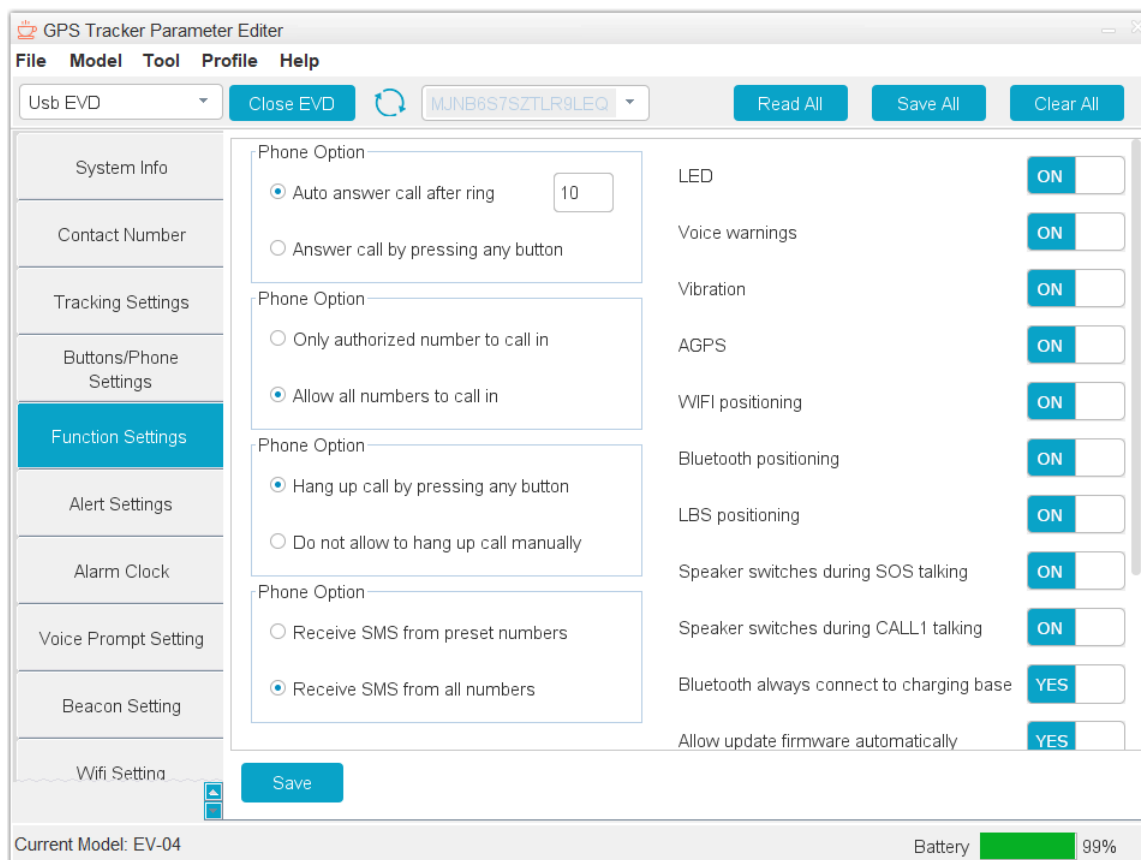
Talking time: The time that can be spent talking with the recipient. After this time, the device will call the next recipient.

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

GPS Tracker Parameter Editor

File Model Tool Profile Help

Usb EVD Close EVD MJNB6S7SZTLR9LEQ Read All Save All Clear All

System Info GEO NO.1 OFF OUT Circle 0

Contact Number GEO NO.2 OFF OUT Circle 0

Tracking Settings GEO NO.3 OFF OUT Circle 0

Buttons/Phone Settings GEO NO.4 OFF OUT Circle 0

Function Settings Over Speed OFF 80

Tilt Alert OFF 45 30 Dial

Motion Alert OFF 120 3 Dial

Alarm Clock No-Motion Alert OFF 60 Dial

Voice Prompt Setting Fall Down Alert OFF 1 Dial

Beacon Setting Low Power Alert ON 20 Power ON Power OFF

Wifi Setting Alert Notification OFF 0 0 URL

Save

Current Model: EV-04 Battery 99%

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

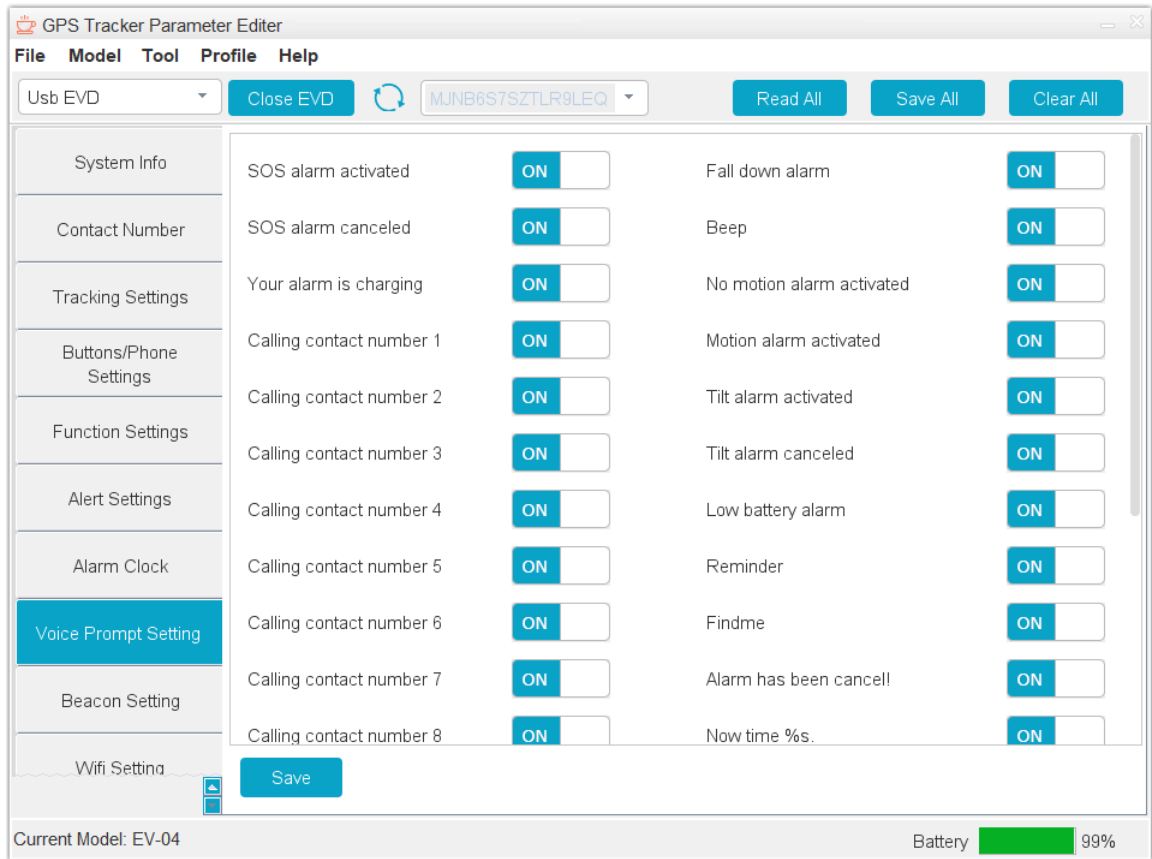
Alert when power off.

2.7 “Alarm Clock” tab

The screenshot displays the 'GPS Tracker Parameter Editor' interface. The 'Alarm Clock' tab is selected in the left sidebar. The main area shows four identical alarm configuration sections, each for 'Alarm No. 1' through 'Alarm No. 4'. Each section includes a status toggle (currently 'OFF'), a time input field (set to '00:00'), a ringtone selection (set to '1'), and a duration input field (set to '30'). Below each time field are seven checkboxes for days of the week: MON, TUS, WED, THU, FRI, SAT, and SUN. A 'Save' button is located at the bottom center of the main area. The top of the window features a menu bar (File, Model, Tool, Profile, Help) and a toolbar with buttons for 'Close EVD', 'Read All', 'Save All', and 'Clear All'. The bottom status bar shows 'Current Model: EV-04' and a battery level indicator at 99%.

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

The screenshot displays the "GPS Tracker Parameter Editor" application. The "Beacon Setting" tab is selected in the left sidebar. The main area contains a table with 10 rows (B1 to B10). Each row has input fields for "Beacon Mac", "Latitude", "Longitude", and "Description", followed by an "OFF" toggle. A "Scan" button is located at the top right of the table area. A "Save" button is at the bottom left. The status bar at the bottom indicates "Current Model: EV-04" and "Battery 99%".

	Beacon Mac	Latitude	Longitude	Description	
B1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	OFF
B2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	OFF
B3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	OFF
B4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	OFF
B5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	OFF
B6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	OFF
B7	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	OFF
B8	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	OFF
B9	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	OFF
B10	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	OFF

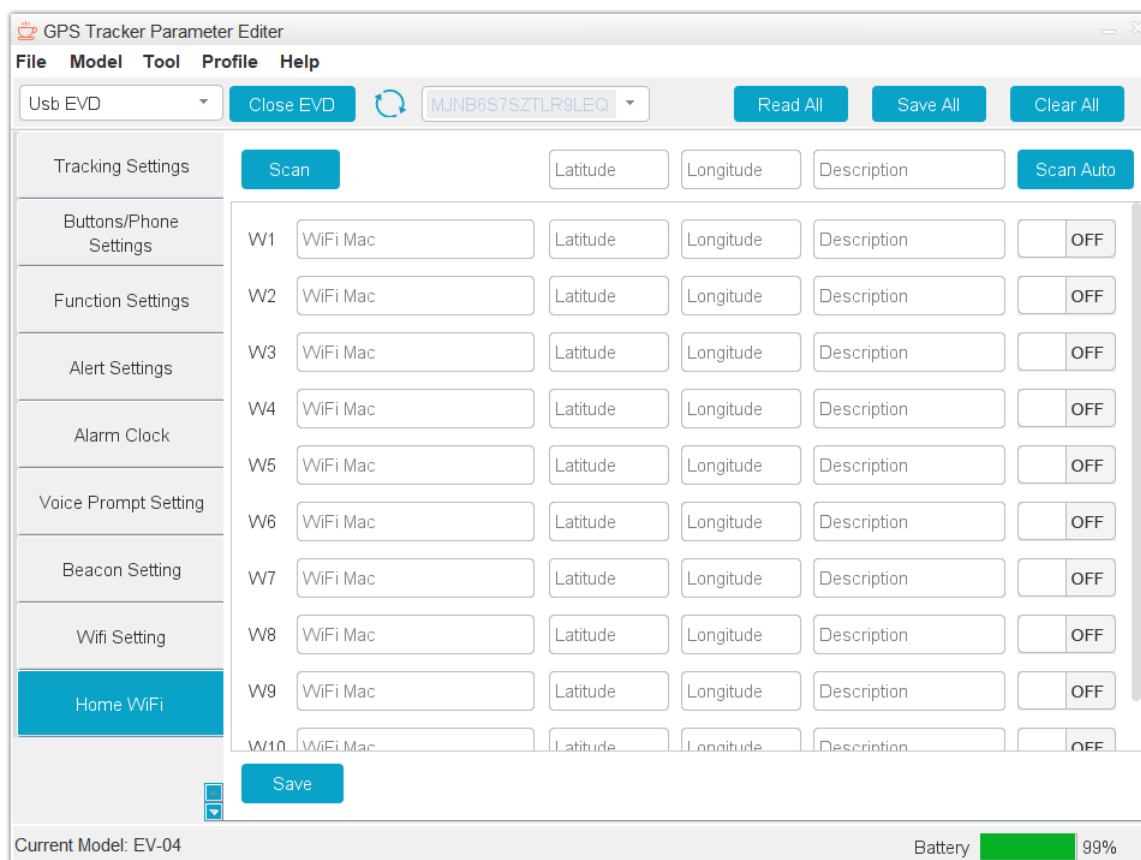
This function can be used to define the location of the beacons. The "Scan" button helps to search for beacons.

2.10 “WiFi Setting” tab

The screenshot displays the 'GPS Tracker Parameter Editor' application window. The 'WiFi Setting' tab is active, showing five rows of configuration options (W1 to W5). Each row includes a 'Wifi Name 1~32 bytes' input field, a 'Wifi Password 8~16 bytes' input field, a 'Connected' checkbox, and an 'OFF' button. A 'Save' button is positioned at the bottom left of the settings area. The status bar at the bottom indicates 'Current Model: EV-04' and 'Battery 99%' with a green progress bar.

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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