

## User guide

Thank you for purchasing StopSleep™! We have created it for your safety conducting serious scientific research. We hope that it will serve you well.

### 1. StopSleep™ delivery set

The set includes (check while opening the manufacture package):

- StopSleep - 1 pc.
- Case for device storage - 1 pc.
- This User Guide - 1 pc.

Option: the package may include:

- Micro-USB / USB adapter;
- Charging devices (mains and car chargers);
- Device strap-holder.

### 2. Description

The StopSleep device was designed to control attention level and prevent dozing of the user. We recommend using the device in the following cases:

- When driving, especially in long trips and traffic jams;
- When operating equipment of a continuous production turn-round, that requires constant attention of the operator;
- While guarding or patrolling, especially at night;
- In situations where dozing can lead to unwanted or accidental impact.

The StopSleep™ device (see the picture) is designed as a ring worn on any two fingers of the left or right hand. For easy holding on your hand there is a double ring 2 in the upper part of which is mounted the case 1 with the switch 3. The loudspeaker 4 for generating audio signals is installed inside the case.

The internal battery of StopSleep™ is charged through the port 5, which is compatible with a standard micro-USB. Charging is carried out by standard chargers from the mains or a car battery, as well as from the computer (depending on the charger). Charging is carried out both when the device is switched off and on.

The operation principle of the device is based on measurement of the skin conductance (electro-dermal activity - EDA). EDA is a reflection of the brain activity.

1. **The device does not prevent dozing physically. It only warns the user of the dangerous condition. The user bears responsibility for his/her condition and the decision made.**
2. **If the user is tired and fights dozing off, the device cannot work while the user's brain is active. At that case the user needs to have a rest without waiting for device signals!**
3. **The device cannot warn you about the dozing condition, if you switch it on being extremely tired.**

Features:

- The device does not require customization.
- The continuous operating time without recharging the unit is at least 10 hours (typically - up to 18 hours, depending on its usage).
- Ways of generating signals: sound, light and vibration.

### 3. Setting-up

The device requires minimal setting-up:

- Charge the battery. The battery must be charged to the level sufficient to the power of the device for at least two hours (if not, the device will warn you about it - see "Working with the device");
- Put the device on; **hands should be warm and clean.**
- Press the "Power" button on the device and hold it till you hear a signal (~2 seconds).

You can use the device ten minutes after its switching on, while you can hear the signals earlier, after three minutes.

**WARNING! The device must be switched on in advance, without waiting for a dangerous condition. The device cannot help the user to deal with a dangerous condition, it can warn its user about its coming.**

### 4. Warranty and safety

We recommend you to check the device work at home. Put it on your hand, turn it on at least one hour before your bedtime. Try to sleep with the device being turned on. You definitely will get the signal "Attention" and / or "Alarm".

The manufacturer's warranty period is a year from the date of purchase.

Requirements in case of return: **lack of damage of the device and packaging, as well as its completeness.**

**WARNING!** Warranty does not cover **mechanical** damage, as well as breakdown due to **moisture**.

## 5. Working with the device

Typically, the device should not bother you if there is no reason for it. False alarms can occur due to a sudden change in environment, temperature (being outside, open windows, etc.). In other cases, from our experience, if an alarm is working - this does not always mean dozing, but always it means a weakened reaction on the surroundings. For the driver this is a dangerous condition that requires an urgent action.

When a suspicious situation comes the device produce the signal – “Attention”, checking the user’s reaction. In case, there is no reaction, the signal “Alarm” is produced. It’s a known fact that the brain activity level of a human being is 28-30 minutes. In about such periods of time, StopSleep™ can produce the signal “Attention” to the user, having an active brain condition, but working monotonously.

The device has three modes:

- Standard
- Taxi/safeguard – is remarkable for its silent signals “Attention” and “Alarm” (warn the user without worrying the client);
- Silent – all signals except “Switching off” are silent. This mode is created for preventing dozing at lectures, panel sessions, theatres and etc.

Switching the modes is carried out with the StopSleepBrowser program while the device is attached to the PC with Micro-USB / USB adapter. You can download the program together with the user guide on the site [www.stopsleep.com](http://www.stopsleep.com) from the “Customers” section.

You can read the device registry using the same program. The function is very important for the enterprise users, as it provides an opportunity to control the device usage by a colleague.

Table 1 shows the signal types within the “Standard” mode.

Table 1. **Signals generated by the device**

No	Signal	Description	Note
1	Switching on	Beep, jerk (short vibration), green LED, which switches off after 3 seconds green LED with 5 second intervals	To switch on the device, push the “Power” button for 2 seconds on the switched off device. The device generates a beep to indicate the level of the battery charge. More squeaking - less charging. Maximum is 6 peeps (low battery)
2	Switching off <sup>1</sup>	Red or green LED flashing (corresponds to the level of the battery charge) during pressing of the button, then a beep.	Press the “Power” button for 2 seconds on the switched on device.
3	Low charge	1 beep, flashing of the red LED. 2 beeps, flashing of the red LED. 3 beeps, flashing of the red LED.	As far as possible - take the device off, plug the charger in. After 15-20 minutes after a triple-beeping, the device will be switched off automatically after the signal “Switching off”
4	Attention! <sup>2</sup>	Double-beep, flashing of the red LED, short vibration	The device detects a dangerous state and checks your reaction.
5	Alert! <sup>3</sup>	Vibrator, “Bells” sound, flashing red LED	Danger! There is no detected reaction to the signal “Attention”. Perhaps, you are about to doze.
6	No contact <sup>4</sup>	A triple beeping every two minutes, red LED flashes every two seconds	Возможно, прибор включили, не надев. Если он надет, причиной могут быть холодные сухие руки или холодные контакты. Perhaps the device was switched on before putting it on. If it is put on, the reason may be your cold and/or dry hands or cold contacts.
7	The device is switched on <sup>5</sup>	LED flashes with 5-minute intervals.	Provides information on the device state and the battery level. When you switch the device on, the flashing begins

			with a second interval and then dies out.
8	Battery charge	Red LED flashes with a 5-second interval.	The device is being recharged.
9	Battery is fully charged	Green LED flashes with a 5-second interval.	Disconnect the battery charger.

<sup>1</sup> Attention! The device will be switched off when the battery is low.

<sup>2</sup> We recommend taking measures to increase the level of your activity. See p.6 in the guide.

<sup>3</sup> You need to have a rest or increase the level of your activity urgently. See p.6 in the guide.

<sup>4</sup> The quality of the contact will be better if you warm your hands.

<sup>5</sup> The signal will be produced while short stroking of the button "Power" on the switched on device.

## 6. Recommendations to avoid dozing

If you feel that you are very sleepy, we do recommend you not to try to deal with it, have a stop and sleep for 15 minutes. Even such a short rest will dramatically reduce the likelihood of dozing on the road. Remember, not only your property but also your life are at risk.

The other ways to avoid dozing are well known and widely used, but much less effective:

- Active movement (walk, jump, work with your hands);
- Deep breathing or yawning;
- **Exercises for the back (to straighten the back).** This exercise should be a common reaction to the signal "Attention". However, if you feel extremely fatigued - this is not enough!

We do not recommend using coffee to prevent dozing: after a brief relief of the condition, the probability of dozing increases dramatically.

We should warn you as well about the following :

- A large number of accidents caused by dozing happen within first 10 minute drive from the house. Do not try to reach the destination at **any rate!**
- Only one in four drivers stops, feeling the danger of dozing. **Be the fourth one!**

**We sincerely wish you safe and accident-free trips! Good luck!**

7.