# **Micro EEG Sleep Monitor**

Brain computer interaction sleep management expert

# Manual

**Product Name: Micro EEG Sleep Monitor** 

Product model: CE01

#### 1. Required reading before use

- 1) Thank you for purchasing this product. Please carefully read the contents of this manual before use to correctly use and fully understand the relevant
- 2) Warnings and risks. After reading, please keep the manual properly for future reference. You can also contact our company for this instruction
- 3) An electronic file of a book.
- 4) This product is a household product and should not be used for commercial purposes.
- 5) As we constantly improve our products, we are subject to any change in technical specifications without prior notice.

#### 2. Precautions

- 1) This equipment is not a medical device. Please do not use the information displayed by the equipment as the basis for clinical diagnosis.
- 2) Do not squeeze the equipment and wires.
- 3) Before using the equipment, it must be ensured that the equipment is in normal working condition and operating environment.
- 4) When using this equipment, keep away from the equipment (such as Mr equipment) that will generate strong electric and magnetic fields. Using the equipment in an inappropriate environment may cause interference to the surrounding radio devices or affect the operation of the equipment.

- 5) This equipment is not recommended to be used at the same time with other similar equipment to avoid affecting the use effect or bringing additional unknown risks. If it is necessary to use it at the same time, it is recommended to consult the manufacturer for the correct use method before use to ensure that it will not cause harm to the user, equipment and surrounding environment on the premise of safety and allowable range.
- 6) Please do not sterilize the equipment under high temperature, high pressure, gas fumigation or liquid immersion.
- 7) The equipment shall not be placed in the following environment: direct sunlight, high temperature, high humidity, close to water source or fire source.
- 8) Due to the small volume of this product, please do not play and use it for infants. Please place it in a place where infants can not reach it to avoid swallowing accidents.
- 9) Electrode paste: Disposable / it needs to be used up within 24 hours after unpacking (see10.Packing list).

### 3. Warning

- 1) Consult your doctor immediately if you have symptoms of acute illness. Do not self diagnose and self treat.
- 2) To ensure safety, please use the parts and accessories produced or recommended by the manufacturer. Using other accessories may cause injury to the user and operator or damage the equipment.
- 3) Prolonged continuous use may increase the risk of adverse changes in cortical characteristics, such as allergy, redness, blistering or burning. If you feel unwell, please stop using immediately.
- 4) If you feel unwell during or after use, please stop using and consult your doctor.
- 5) This product contains lithium battery. Please do not disassemble, refit, immerse the product in water or throw it into fire, otherwise it will cause damage and explosion.
- 6) For the disposal of wastes, residues and equipment and accessories at the end of their service life, please follow the national and local regulations to avoid environmental pollution.
- 7) Since this product contains lithium batteries and circuit boards, in order to protect the environment, please separate it from domestic garbage at the end of the service cycle and hand it to a qualified professional organization or recycling station for disassembly or recycling.
- 8) Since this product has the function of reporting the wearer's sleep condition and body movement position, the collected data may involve personal privacy. Please keep the account number and password of the equipment and network service properly. The company will not bear any responsibility for data leakage or other purposes due to loss or improper storage.
- 9) Due to the small volume of this product, please do not play and use it for infants. Please place it out of reach of infants to avoid swallowing accidents.

# 4. Scope of application

The product can record, store and analyze physiological signals such as EEG, body position, body movement and snoring of patients during sleep, providing reference for sleep health and entertainment. It can not be used for medical purposes.

# 5. Disabled population:

Infants under 5 years old, people with damaged forehead skin, people with skin allergy, and people without autonomous behavior.

# 6. Expected users

This product is used on the forehead of human body and is suitable for healthy adults or adults with sleep disorders.

#### 7. Product Overview

Schematic diagram of product composition

Host Charging cable

Power key status indicator.

EEG electrode.

Charging contact.

**Electrode paste** 

Hand tear position.

Partition strip.

double faced adhesive tape.

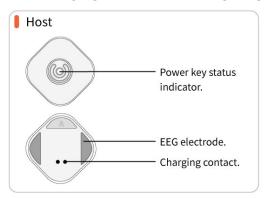
Gel.

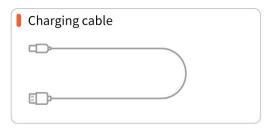
#### **Charging box**

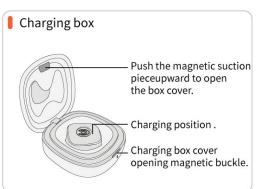
Push the magnetic suction piece upward to open the box cover.

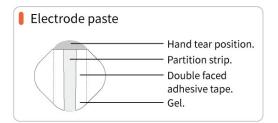
Charging position.

Charging box cover opening magnetic buckle.









# 8. Description of the name, content and restricted use signs of hazardous substances in the product

	Hazardous substances					
Part name	Lood	Maraum	Cadroium	Chromium	Polybrominated	Polybrominated
	Lead	Mercury	Cadmium Chromium	biphenyls	diphenyl ethers	
Charging cable	×	0	0	0	0	0
Electrode aste	0	0	0	0	0	0
PCB board	×	0	0	0	0	0
Plastic shell	0	0	0	0	0	0
enclosure	0	0	0	0	0	0

- O: It indicates that the content of the hazardous substance in all homogeneous materials of the component is below the limit specified in GB / T 26572.
- ×: It indicates that the content of the hazardous substance in at least one homogeneous material of the component exceeds the limit specified in GB / T 26572.



Environmentally friendly use

Age mark

The "environmental protection service life" of this product is 3 years, which is specified by the enterprise according to the design characteristics of the product. The "environmental protection service life" is valid only when the product is used under normal conditions as described in the user manual.

After the service life is exceeded or cannot be maintained for further use, it shall not be discarded at will, and shall be separated from domestic garbage and delivered to qualified professional institutions or recycling stations for disassembly or recycling.

# 9. Functional specification

This product can realize the following functions:

Function name	Supported models	Function description	
Prefrontal EEG acquisition	Cat eye 1	Monitoring and recording EEG data during sleep	
Posture and body movement analysis	Cat eye 1	Monitor and record the posture of human body: upright, lying on the left side, lying on the right side, lying on the back, lying prone, leaving the bed, and the motion amplitude and frequency of the head	
Sleep stage	Cat eye 1	Perform sleep stage monitoring to realize automatic interpretation of wake-up period, rapid eye movement period, light sleep and deep sleep	
snore	Cat eye 1	The frequency, loudness and time distribution of snoring were analyzed	

# 10. Packing list

Name	Quantity	Service life	Remarks
Host	1 PCS	3 years	
Charging box	1 PCS	3 years	
Electrode paste	16 slice	Disposable / it needs to be used up	Additional purchase is
		within 24 hours after unpacking	required after use
Charging cable	1 PCS	3 years	

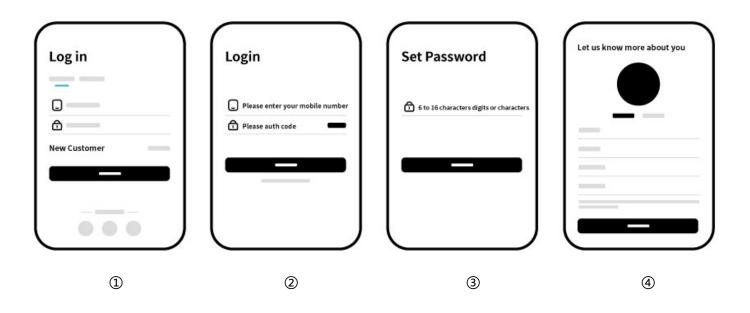
#### 11. Instructions

#### 1) Switch on and off

- a) In the shutdown state, press the host Logo Button for a short time, and the green light of the host will be on for a long time, indicating that the host enters the state to be connected.
- b) After power on, long press the host Logo Button, and the host indicator flashes and goes out, indicating that the device has been shut down successfully.

### 2) Get apps and actions

a) Download and install "UMindSleep" APP through mobile APP search; You can also scan the QR code below for download.



#### **UMindSleep APP**

- b) Open the mobile APP, click "user registration" for new users, set the account and password as required, and complete the registration.
- c) After completing the registration, enter the account and password you set in the login interface to complete the user login.
- d) If you forget your password during login, click reset password on the interface and complete the new password setting according to the prompts of the APP.

#### 3) Mobile terminal connection equipment

This product is connected to the mobile terminal through Bluetooth. The operation steps are as follows:

- a) Turn on the mobile phone Bluetooth (some mobile terminal systems need to turn on the positioning function of the application to use the Bluetooth function).
- b) According to the guidance of the APP, connect the sleep meter at the interface point after login, and select the last four digits of the device serial number (SN code) from the device list.
- c) After the connection is successful, the indicator light of the device will flash slowly in green.
- d) If the connection fails, refer to "common fault handling" in this manual.

#### 4) Equipment - monitoring operation steps

- a) Please ensure that the host has sufficient power before use.
- b) Please clean and dry the forehead skin before wearing.
- c) Tear off the release film on the surface of the equipment, and align the electrode with the area a of the equipment and stick it tightly.
- d) Press the device logo and release it. If the green light is on, the device will be powered on.
- e) Tear off the release film on the forehead of the electrode paste to expose the gel.
- f) The opening of the logo of the host is upward, and it is pasted and pressed in the center of the forehead.
- g) Open the APP to connect the device, and the slide monitoring module starts monitoring



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# 5) Equipment charging



a) Charging box charging: when using type-C charging, connect the charging cable to the charging bin Type-C interface power supply (self configured) connection.



- b) Charging of the host: align the charging contact of the host with the contact pointer of the base of the charging bin and place it. The host will automatically absorb and stabilize. At this time, the indicator light of the host is in orange breathing state, indicating that the host is charging; If it is green, it means the charging is completed.
- c) Low power alarm: when the host is turned on, if the power is less than 5%, the orange light flashes.

# 6) Equipment indicator description

Power status	Power status	Bluetooth connection Indicator Status status		
Charging	< 100%	Connected or	Orange light breathing (off for 5 seconds, breathing for 5 seconds)	
	100%	not connected	The green light is always on	
Equipment open,	> 5%	Connected	<ol> <li>When not recorded, the green light breathes (extinguishes for 5 seconds and breathes for 5 seconds);</li> <li>When recording, if the body position is not upright, the light is off;</li> <li>During recording, if the posture is upright, the green light will be used for breathing (off for 5 seconds, breathing for 5 seconds).</li> </ol>	
not charged	> 50% 5%~50%	Not connected	The green light is always on. If it is not connected after 3 minutes, it will shut down automatically.  The orange light is always on. If it is not connected after 3 minutes, it will automatically shut down.	
	0%~5%	Connected or not connected	The orange light flashes, If it is not connected after 3 minutes, it will shut down automatically.	
Equipment off, not charged	0%~100%	Connected or not connected	Extinguish	
upgrade process	> 5%	Connected or not connected	, and the second	
When shutting	> 5%	Connected or	The green light flashes once every 0.5 seconds	
down the device	0%~5%	not connected	The orange light flashes once every 0.5 seconds	

# 12. Common fault handling

- 1) The host cannot start: try charging.
- 2) The host cannot be shut down: try to press and hold the key for more than 6 seconds to forcibly reset.
- 3) The host cannot be charged: check the charger, charging cable, try to put it back into the host, pay attention to the direction, and ensure that the electrode points are in normal contact.
- 4) No response to the key: long press the key for more than 6 seconds to forcibly reset, and then short press the key to restart.
- 5) Unable to find the Bluetooth device: confirm whether the Bluetooth function of the mobile phone device is normal. If it is normal, try to restart the host, or turn off the mobile phone Bluetooth and turn it on again.
- 6) Bluetooth connection failed: try to restart the host, or turn off the mobile phone Bluetooth and turn it on again.
- 7) Abnormal signal after connection: try to restart the host and reconnect.

  If the above problems are still abnormal after repeated confirmation, please contact customer service. If you want to know more about sleep problems and sleep aids,

  Note: please get it through the official account!

#### 13. Maintenance

- 1) After use, put the host into the charging slot of the charging box and put it in a ventilated and dry environment. Avoid direct sunlight, and the storage and transportation environment shall meet the requirements.
- 2) Clean the product after use. If it is used by more than one person, it is recommended to wipe and disinfect the host and charging box.
- 3) During cleaning and maintenance, please shut down the machine first, use neutral detergent or soft cloth to clean the surface of the main machine and charging box. If necessary, use a little medical alcohol to wipe and disinfect. Do not use corrosive detergent or rinse in water.
- 4) During cleaning, water stop and other liquids shall be prevented from entering the machine body to avoid circuit short circuit and equipment damage.
- 5) When it is not used for a long time, it shall be stored with full charge and charged for the host every three months. Otherwise, the battery performance of the equipment will be seriously reduced and the battery life of the equipment will be affected.
- 6) Before using the electrode paste, check whether it is within the validity period. It is prohibited to use the electrode paste that has exceeded the validity period. After unpacking, the electrode paste should be stored in the charging box and used within 24 hours. Otherwise, the measurement results may be inaccurate.

#### 14. Service

This product can be returned for seven days without reason (without affecting secondary sales).

Free warranty within the service life (except for man-made damage): when the product fails or cannot work, the customer service shall be contacted in time. It is prohibited to Any form of maintenance or other treatment of the product without authorization.

The service life of this product is 3 years.

#### 15. Warranty terms

The warranty (free maintenance) within the warranty period shall be implemented from the date of purchase.

1. The goods within the warranty period are only guaranteed by the manufacturer; For warranty, please refer to this warranty card and purchase invoice.

Please pay special attention to the following two points:

- a) This warranty card will not be reissued after it is lost. Please keep it properly.
- 2. Within 12 months from the date of purchase, the warranty shall be carried out under the condition of normal use and failure.
- 3. Under the following circumstances, even within the warranty period, the warranty cannot be free, but the repair can be paid.
- a) Damage caused by failure to use, maintain and keep the goods in accordance with the instructions for use of the goods.
- b) Damage caused by incorrect operation and damage (such as falling).
- c) Damage caused by self disassembly.
- d) Unable to present this warranty card and valid purchase invoice.
- e) The information recorded on the warranty card is inconsistent with the physical identification of the commodity or altered.
- f) Damage caused by force majeure (such as earthquake, fire, flood, etc.).
- 4. Maintenance outside the warranty scope will be charged according to regulations.
- 5. Consumables and accessories are not covered by the warranty. Please contact us for purchase if damaged or used up.

	Warran	ty Card	
Product model		Product ID	
Delivery date		User name:	
Contact person		Contact number	
Contact address			
Dealer Name		Dealer telephone	
Dealer (signature / seal)			

	Maintenance records	
Repair date	Fault description	Repair personnel

	Product certificate
Product Name:	Micro EEG Sleep Monitor
Product model:	CE01
Testing personne	el:
Test date:	

#### FCC Statement

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- -- Reorient or relocate the receiving antenna.
- -- Increase the separation between the equipment and receiver.
- -- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- -- Consult the dealer or an experienced radio/TV technician for help

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions (1)this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### 6. After-sale service

Manufacturer: Shenzhen EEGSmart Technology CO.,Ltd

Address: 1401, Building 7A, Guoji Chuangxin Gu, 3rd Phase Wanke Yuncheng, Xili, Nanshan

district, Shenzhen, Guangdong Province, China

Zip Code: 518055

Web site: http://www.eegsmart.com Phone number: 0086-400-0121-699

Working hours: 9:00-18:00 Email:umind@eegsmart.com